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No. 22893

Annual Report

ON THE

Health and Sanitary Circumstances
of the Borough

FOR THE YEAR 1919,

—BY—

JOSEPH CATES,

M.D., Lond., D.P.H., Camb.

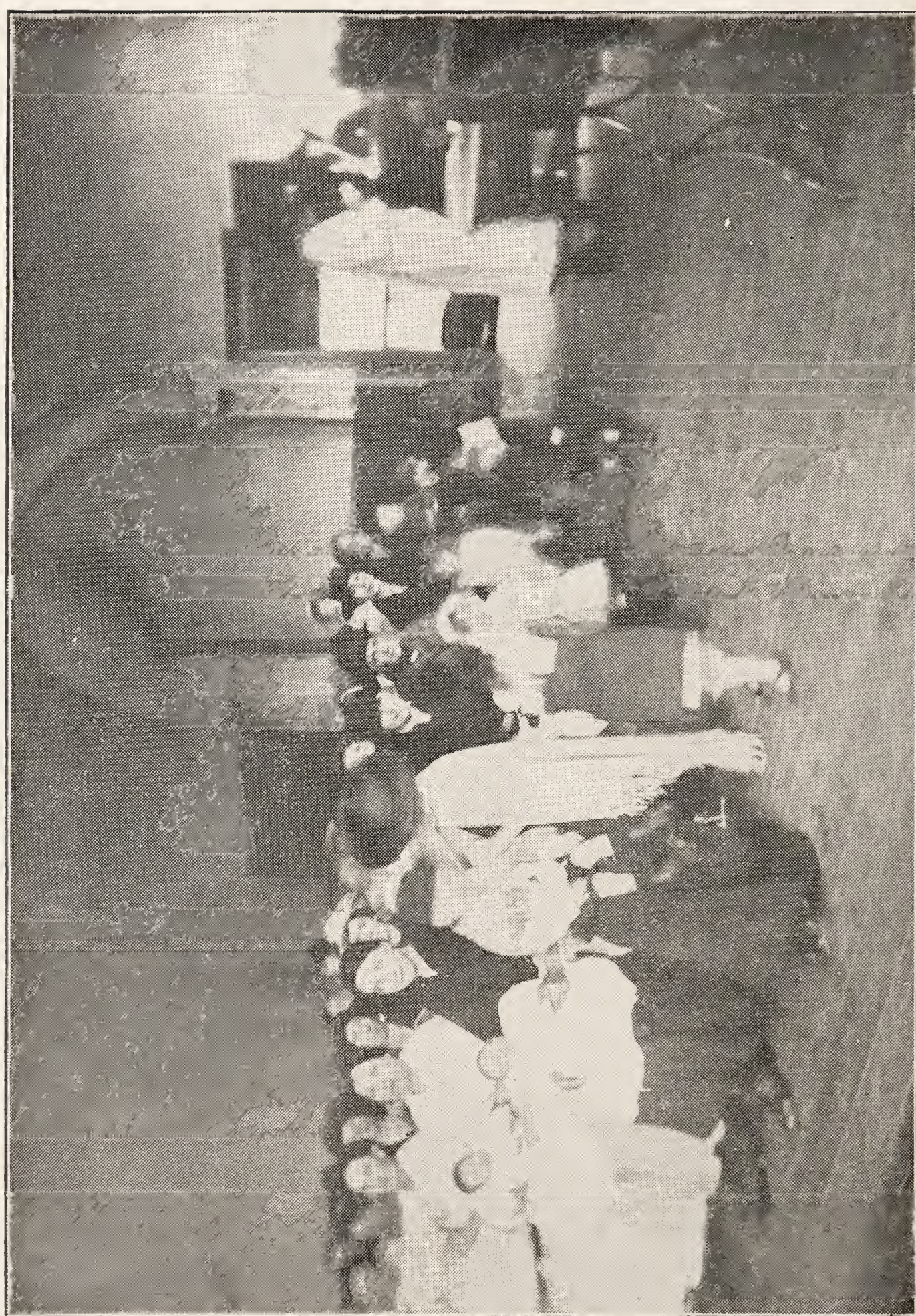
Medical Officer of Health,

School Medical Officer.

St. Helens:

WESTWORTH & SONS, PRINTERS AND STATIONERS, LOWE STREET,

1920.



COUNTY BOROUGH OF ST. HELENS.



47TH

Annual Report

OF THE

Medical Officer of Health.

—BY—

JOSEPH CATES, M.D., State Medicine, B.S., (Lond).
D.P.H. (Camb).


Medical Officer of Health, Chief Tuberculosis Officer, School Medical Officer, and Medical Superintendent of the Corporation Hospitals, County Borough of St. Helens; Fellow of the Royal Society of Medicine and Member of the Epidemiological Section, Fellow of the Society of Medical Officers of Health, and of the Royal Sanitary Institute, Formerly Demonstrator of Public Health at King's College, University of London, Assistant Medical Officer of Health to the County Borough of Coventry, Medical Officer of Health and School Medical Officer to the Borough and Port of Lancaster.

1919.

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PREFACE.

TO THE CHAIRMAN AND MEMBERS OF THE HEALTH COMMITTEE.

LADIES AND GENTLEMEN,

I have the honour to present the following report which deals with the health and sanitary circumstances of the borough for the year ending 31st December, 1919, and briefly reviews the work carried out under the direction of your medical officer.

POPULATION.

It is estimated that the civil population of the borough for the year 1919 was 100,805, and that the total population including those on military and naval service was 105,009.

MORTALITY.

The general death rate for St. Helens was 15 per 1,000 of the population. Only once, in 1910, has a lower death-rate been recorded in the borough. In Central ward, an insanitary area, the death rate was 23.8.

The infant death rate was 117.6 per 1,000 births. Only once, in 1916, has the rate been less, but in Central ward the infant death rate was 151.8.

INFECTIOUS DISEASES.

In the early months of the year influenza was prevalent, and the cause of some 150 deaths. The numbers of notifications of scarlet fever and diphtheria continued to decline. The usual biennial epidemic of measles began in October, 1919, and continued until June of the present year. A reference to the outbreak will be found on page 23. Typhoid fever was reported on seven occasions, but only four of the patients were instances of the disease.

Small pox did not occur.

The death rate from the seven principal infectious diseases was 0.82 per 1,000 of the population, the lowest on record.

MATERNITY AND CHILD WELFARE.

The steps taken by the Council to promote the welfare of expectant mothers and young children by advice, nourishment and medical aid, are obtaining a large measure of success. In 1913 the infant death rate was 155; it is now 117.6, a reduction of 25 per cent in six years. These figures give reason to expect that resolute perseverance along the lines indicated in the next paragraph will accomplish an equally satisfactory result.

NEEDS OF THE DISTRICT.

The chief menace to life is the deficient and defective housing in the borough. While 20 to 30 per cent of the dwellings are overcrowded, and new houses are unavailable, little advance can be expected in the sanitary progress of St. Helens.

There are five directions in which action must be taken if the health of the district is to be improved :—

The provision of houses for the working class and the closing and clearance of certain insanitary areas.

The provision of adequate hospital accommodation for maternity and for infectious diseases.

The conversion of the pail closets and privies now in use.

The abolition of the bricked ashplaces and the provision of closed ashbins.

The paving of yards.

STAFF.

During 1919 the following members of the staff were welcomed on their return from active service,

*Major S. J. C. Holden, ¹ M.B., D.P.H.	...	Deputy Medical Officer of Health.
Major Frank Hauxwell, ¹ M.B., D.P.H.	...	Assistant Medical Officer of Health.
*Captain R. Baron, L.D.S.	...	School Dentist.
Staff Sergt W J. Milligan	...	Chief Sanitary Inspector.
Corpl. J. Almond	...	District Sanitary Inspector.
Lieut. H. Brown, R.E.	...	District Sanitary Inspector.
Rfln. H. Lowe ²	...	District Sanitary Inspector.
Rfln. J. Skeath ²	...	District Sanitary Inspector.
Corpl. T. G. Ellis	...	Chief Clerk.
Corpl. A. C. Harrison	...	2nd Class Clerk.
Corpl. F. C. Thomas ²	...	2nd Class Clerk.
A. B., T. Howard	...	Junior Clerk.
Sapper H. Ridgeway	...	Disinfector.
Pte. H. Myers ²	...	Disinfector.
Sergt. T. Simcock	...	Ambulance Driver.
Driver P. McDermott	...	Ambulance Driver.

¹—Mentioned in Despatches.

²—Wounded.

*Resigned during the year on obtaining another appointment.

These gave their lives for their country :—

Sec. Lieut. F. Collier	...	Housing Inspector.
Flight Sergt. J. Helsby	...	Junior Clerk.

Until the return of the permanent staff, the following for varying periods helped to carry on the work of the department :—

R. L. Gamlin, M.A., M.D., B.C., M.R.C.S., L.R.C.P., D.P.H.						} Assistant Medical Officers of Health.
C. W. Gee, L.R.C.P., AND S., D.P.H.	...	...	...	...	...
G. Barker Charnock, L.R.C.P., AND S., D.P.H.	...	...	...	...	...
B. R. Townend, L.D.S.	} School Dentists.
J. R. Townend	...	...	...	...	...
Grace Graham	} Chief Clerks.
Florence Russell	...	...	...	...	...
Gertrude Robinson	} Correspondence Clerk.
Alice Dungey	...	...	...	...	...
Doris Roberts	} Clerks.
Joseph Gallagher	...	...	...	...	...
Henry Cheetham	} District Sanitary Inspectors.
Cyril Whiteley	...	...	...	...	...
George E. Taylor	...	...	...	...	...
Kate Forster	} Disinfectors.
Nellie Hatton	...	...	...	...	...
John Cain	...	...	...	...	...
Thomas Conroy	...	...	...	...	...
Sarah Boulton	Ambulance Driver

It gives me pleasure to refer to the manner in which the work of the department has been performed. The efficient conduct of a staff is dependent upon the willing and loyal service of its members.

I am,
Ladies and Gentlemen,
Your obedient servant,
JOSEPH CATES.

30th May, 1920.

SUMMARY OF VITAL STATISTICS FOR 1919.

						St. Helens	England and Wales.
<hr/>							
TOTAL POPULATION—Estimated to the middle of							
the year—	...	...	...	...	...	105,009	
ESTIMATED CIVIL POPULATION	...	...	...	...	...	100,805	
<hr/>							
MARRIAGES	...	...	...	...	...	924	369,007
Annual rate of persons married per 1,000 of the							
total population	...	...	...	...	...	17.5	19.7
<hr/>							
BIRTHS	...	...	...	...	...	2,687	692,680
Annual rate of births per 1,000 of the total							
population	...	...	...	...	...	25.5	18.5
<hr/>							
DEATHS	...	...	...	...	...	1,521	504,254
Annual rate of mortality per 1,000 of the civil							
population	...	...	...	...	...	15.0	13.8
Infant mortality rate per 1,000 births	...	...	...	...	...	117.6	89
Death-rate from diarrhoea of children under two							
years of age, per 1,000 births	...	...	...	...	...	10.0	9.5

ANNUAL REPORT

ON THE HEALTH AND SANITARY CIRCUMSTANCES OF THE BOROUGH DURING THE YEAR 1919.

NATURAL AND SOCIAL CONDITIONS OF THE DISTRICT.

St. Helens is situated in the south west of Lancashire, about 10 miles north east of Liverpool and 20 miles west of Manchester. The coast is nearest at Seaforth, a town at the mouth of the Mersey, 12 miles west of the borough.

The line of the borough boundary is roughly the circumference of a circle, the centre being at Peasley Cross, and the radius a distance of about two miles.

The area is approximately 7,285 acres ; The assessable value on the 1st April, 1919, was £390,650. A penny borough rate is estimated to yield £1,500.

On the north east are the urban districts of Haydock and Ashton-in-Makerfield, and the rural district of Warrington. With these exceptions, the borough is bounded by the Whiston rural area.

From the south west corner of the borough, about 270 feet above sea level, the ground slopes gradually towards a belt of flat land extending from east to west across the district, and traversed by small streams which unite in the eastern part of the area to form the Sankey brook. One of these water courses, known as Windle brook, passes through the centre of the thickly populated, north western division of the borough. It appears that the older portions of the town were built along the banks of this stream. The land in the northern part of the borough also inclines towards the Windle brook.

Between St. Helens and the coast, the land generally is low lying, and is used for agriculture.

The borough is divided into nine wards. Table 1 on page 33 shows the position, acreage, estimated population for 1919, and density of each ward calculated on the approximate area built upon.

At the Corporation Observatory in Victoria Park, METEOROLOGY. meteorological readings are taken once a day at 9 a.m.

Table 2 shows the annual rainfall in St. Helens since 1890.

The estimated total population of the borough at the POPULATION. middle of 1919 was 105,009. According to the figures revealed by the registration for food rationing, the civil population was estimated to be 100,805. Tables 3 and 4 give the number of inhabitants of the borough and of each ward as shown by the census returns of 1911.

The age and sex distribution of the population at the time of the last census is set out in table 5.

Table 6 gives the number of persons resident in the various institutions of the borough at the census period 1911, and also the figures for 1919.

The amount of outdoor relief in money and kind supplied POOR LAW by the Guardians during the year ending 30th September, RELIEF. 1919, to persons resident within the borough, and chargeable to the Union was £8,899 0s. 3d.

It has been found impossible to obtain figures showing the amount of pauperism in the borough for a series of years, as statistics are not prepared by the Poor Law Authority, for separate sanitary districts, but for the whole Union, which comprises nineteen townships.

A scheme to provide clothing for destitute children CLOTH AND CLOTHING is organised by the Chief Constable. As a result of useful FUND. work carried out during the past year 405 children received footgear and clothing, 1,001 articles being distributed.

Free meals to the number of 76,105 were provided SCHOOL by the Local Education Authority for children selected CANTEENS. from a school population of 20,214. In addition there were 43,806 meals supplied on payment.

There are the following voluntary hospitals available HOSPITALS. for the use of the inhabitants of the borough, and those residing in the rural area around.

The Providence Free Hospital with accommodation for about 100 patients. There is no honorary visiting staff. Admission can only be obtained on the recommendation of the medical attendant of the patient. Each patient is under the care of his or her private medical practitioner or panel doctor, and is expected to pay the former for the treatment received. There is no resident medical officer, and no out-patient department. Maternity cases are not admitted, nor persons suffering from any infectious or contagious disease. There are four single-bedded private wards. During 1919, 1,049 patients were admitted for treatment.

The St. Helens Hospital, formerly known as the Cottage Hospital, provides accommodation for about 115 patients. Admission is restricted to penny-a-week subscribers, their wives and children. There is no honorary visiting staff, admission can only be obtained on the recommendation of the medical attendant of the patient; each patient is treated by his own medical man. There is now a resident medical officer. Maternity cases are not admitted, nor are patients suffering from any infectious or contagious disease. In-patients, other than insured persons, are expected to pay for medical or surgical treatment. An ophthalmic surgeon from Liverpool visits the institution once a week to examine patients sent to him with a recommendation from a private practitioner. A specialist in women's diseases attends once a fortnight to examine out-patients referred by private practitioners. During 1919, 1,259 new in-patients, 560 out-patients, were treated.

The Pilkington Special Hospital, founded by Messrs. Pilkington Bros., was opened in February, 1917, and is an orthopædic and limb-fitting centre for a large area of Lancashire and the whole of Westmorland. It provides 300 beds, at present mostly occupied by discharged soldiers undergoing the special treatments. There are also 8 side wards for cases after operation and a ward for women and children.

In addition, upwards of 250 out-patients attend 5 days per week.

The medical staff consists of three resident medical officers and a visiting surgeon who is also the medical officer in charge.

The cases are chiefly orthopædic, viz. :—injuries to peripheral nerves; contractural, paralytic and other deformities; injuries and diseases of bones and joints; amputation cases for limb-fitting.

The departments of the hospital work are :—

SURGERY : (a) operative ; (b) minor.

RADIOGRAPHY.

PHYSIOTHERAPY : (a) electro-therapy, (b) hydro-therapy,
(c) thermo-therapy, (d) mechano-therapy,
(e) Massage.

SPLINTS AND PLASTER CASTS.

ARTIFICIAL LIMBS : fitting and repairs.

EDUCATION AND PERSONAL WORK : (a) curative workshops,
(b) studies,
(c) entertainments and sports.

Admission of discharged soldiers is arranged with the Ministry of Pensions.

The special facilities provided by the hospital for cases of industrial and other accidents are utilised by Messrs. Pilkington Brothers, Ltd., for their employees ; by local Colliery Companies ; by Accident Insurance Companies ; and by the doctors of St. Helens and district.

Cases other than accidents if found suitable are admitted - on a capitation charge.

A voluntary association for the aid of crippled children
CRIPPLE has rendered help during the year to 92 patients by the
CHILDREN. provision of apparatus, spinal carriages and hospital
treatment.

The Education Authority contributed £597/10/0 towards the maintenance of children at surgical homes and other institutions.

CONVALESCENT A Fresh-Air Fund sent 41 children to convalescent homes
HOMES. for a period of at least three weeks, and assisted in other
ways for a large number of cases.

In order to provide for the home nursing of cases of
HOME infectious diseases, particularly measles, whooping cough,
NURSING. ophthalmia and pneumonia, the Council utilises the services
of the nurses employed at the school clinic. During 1919,
232 persons were nursed at home, 2,250 visits being made. The services
of the nurses have been greatly appreciated and considerable benefit would
be likely to accrue from an extension of the scheme, to cover the home
nursing of other ailments, especially pulmonary tuberculosis.

A nursing association, by means of voluntary contributions, maintains a superintendent and seven nurses to attend suitable cases in their own homes, except those residing in an outlying area. One thousand and twenty-one new cases and 109 old cases were nursed during the year, the total number of visits amounting to 25,374.

 This centre has afforded treatment to 4,709 persons
SCHOOL CLINIC during 1919. The amount of work carried out at this
AND clinic is increasing rapidly, and it is becoming an important
DISPENSARY. factor in the prevention of illness, and the discovery of
the beginnings of disease.

SANITARY CIRCUMSTANCES OF THE DISTRICT.

WATER. The Council supply water obtained from deep wells in the new red sandstone. There are six pumping stations.

A portion of the water is pumped to a central reservoir, and before being distributed is softened by a liming process, the average hardness before and after softening being, according to Clark's scale, 22.1 degrees and 10.5 degrees respectively. During the year ending 31st December, 1919, 1,665,611,480 gallons were used, 1,136,042,393 for domestic supply, and 529,569,087 for trade purposes. The vast majority of houses in the borough are supplied from the corporation mains. The supply is constant, but has recently proved insufficient. A few farms and cottages are still supplied from shallow wells.

RIVERS AND STREAMS. The Sankey Brook formed by the Windle, Sutton and Rainford brooks, together with several small watercourses, passes through the north eastern quarter of the borough, closely following the course of the St. Helens canal. It receives the effluent from the corporation sewage works, the Haydock sewage works, and also a large amount of untreated sewage and trade effluent. The canal at Gerards Bridge is greatly polluted with crude sewage.

DRAINAGE AND SEWERAGE. Drains are laid in practically the whole of the populous portions of the borough but owing to colliery subsidences the condition of the main sewers give a cause for anxiety.

There is separation of sewage and storm water in Dentons Green and Newtown areas, surface and storm water being turned into Windle brook. In the outlying districts a number of houses have been built in situations remote from sewers. About three-quarters of the sewage of the borough is treated at the Parr sewage works by liming and sedimentation: the effluent, varying greatly in composition and treatment is discharged into the Sankey Brook. The remainder of the sewage is turned, untreated, into the same water course. The bulk of the material collected from the conservancy system is treated at a depot in Parr. A portion of the substance obtained from privy middens is sold to farmers.

CLOSET ACCOMMODATION. Tables 7 and 8 show the estimated number of houses with the various types of sanitary conveniences existant in the borough each year since 1907, and the number of conversions completed since 1904. During the war there was a considerable diminution in the number of conversions carried out. In June, 1919, the Council decided to re-commence

the work of the systematic abolition of the conservancy method and to meet the increased cost of labour the former grant of £1/7/6 for each pail closet converted to a water closet was increased to £3. In addition it was resolved to provide a tippler wall bin free of cost to owners who wish to do away with a bricked ashplace. The usual fittings are given for each conversion completed in a satisfactory manner.

PUBLIC There are fifteen public conveniences situated in various parts of the town. Eleven are modern structures, but in CONVENIENCES. only one instance is there water closet accommodation. Additional provision is urgently needed, both as regards closets and also urinals for women.

PUBLIC The Public Baths are situated in Boundary Road. BATHS. The total number of baths used during the year was 146,835, being 119,413 plunge baths, 26,620 slipper baths, 142 vapour baths and 660 baths were provided free for soldiers.

PUBLIC WASH There are still in the borough a considerable number of HOUSES. houses without a wash boiler or other facility for domestic washing. Under ordinary circumstances there would be need for a public wash-house, but with the amount of overcrowding in St. Helens the provision of suitable central accommodation should no longer be delayed.

SCAVENGING. Removal of house refuse, and the emptying of pail closets and privy middens are undertaken by the corporation.

The removal of the contents of privy middens is carried out about three times a year, and at less infrequent intervals on request. Pail closets and ashplaces are supposed to be emptied about once a week. Fish refuse and other material liable readily to decompose are taken away weekly. Bricked ashpits and ashplaces with wooden doors are common in the borough. The conversion of these to wall bins of the tippler type is slowly being proceeded with, 135 were converted during the year. Thirty moveable bins were provided. In new houses wall bins are generally fitted.

About three-quarters of the house and trade dry refuse is treated at a destructor in Boundary Road. During 1919, 13,696 tons were destroyed. The actual cost of labour per ton for destruction only was 3/10, and the approximate allowance for the sale of steam amounted to £887.

The remainder of the house refuse is tipped at Parr depot.

The general condition of the streets, passages and footpaths is unsatisfactory and in some areas of the town extremely insanitary.

Street sweeping is carried out by the corporation. The main streets are cleansed about twice a week. The side streets and passages about once a week. The cleansing and sweeping of footpaths adjoining dwellings is the duty of occupiers and is generally neglected.

The total number of visits made by the five sanitary
 SANITARY inspectors was 8,731. This figure does not include a
 INSPECTION OF considerable number of inspections made for the purposes
 THE DISTRICT. of the housing survey. Table 9 contains a list of notices
 served during 1919, and a record of nuisances remedied.

All notices are examined and signed by the medical officer, nuisances unremedied after a preliminary notice are reported to the Health Committee, and a statutory notice is then served. A long interval, it may be as much as three or four months, elapses before proceedings are instituted for failure to comply with the statutory notice. The knowledge that magisterial proceedings are rarely taken to enforce the removal of nuisances is the main cause of the failure of legal notices to achieve their purpose.

There were in the borough at the beginning of the year
 COMMON four common lodging houses registered for the reception
 LODGING of 202 lodgers. During 100 inspections, 8 infringements
 HOUSES. of bye-laws were discovered.

There were 14 houses let in lodgings on the register at
 HOUSES LET the commencement of the year, but there are a large
 IN LODGINGS. number of houses illegally used as houses let in lodgings.
 The houses on the whole are not well kept, and are structurally unsuitable. Fifty-seven inspections were made, and 10 notices were served.

There are 108 bakehouses on the register : one is under-
 BAKEHOUSES. ground. Mechanical power is used in 15 instances. Three defects were discovered during the year, and after notice each was remedied.

There is room for considerable improvement both in the sanitation of the premises and in the standard of cleanliness observed.

CANAL-BOAT. No canal boat was inspected during the year.

OFFENSIVE TRADES. At least nine offensive trades are carried on within the borough. There are five tripe dealers, a manure manufacturer, a fat melter, a bone boiler and a gut scraper. In many cases the premises are structurally unsuitable.

UNDERGROUND ROOMS. No instance was discovered of the use of an underground room as a dwelling, but many are used for the preparation of food.

ATMOSPHERIC POLLUTION. An enquiry was continued under the auspices of the Committee for the Investigation of Atmospheric Pollution. When the atmosphere of a district is polluted by the imperfect combustion of coal, an indication of the extent of the pollution can be obtained by collecting rainwater and estimating the amount of soot and tarry matter therein.

The results of the enquiry and figures relating to similar investigations in other towns are set out in table 10. Briefly it is shown that approximately 14 cwts. of soot per acre was deposited during the year in the centre of the town.

FOOD.

Twenty-two persons are registered as cow keepers. There are about 198 cows kept for dairy purposes within the district. The animals are inspected four times a year by a veterinary surgeon appointed by the committee. Four defects in the cowsheds were reported during 1919. A higher standard of cleanliness might be observed both in the methods of milking and in the state of the sheds, and insufficient use is made of the means of ventilation provided.

During 1919 two milk-shop dealers were added to the register, but none were removed, 122 remaining on the register at the end of the year.

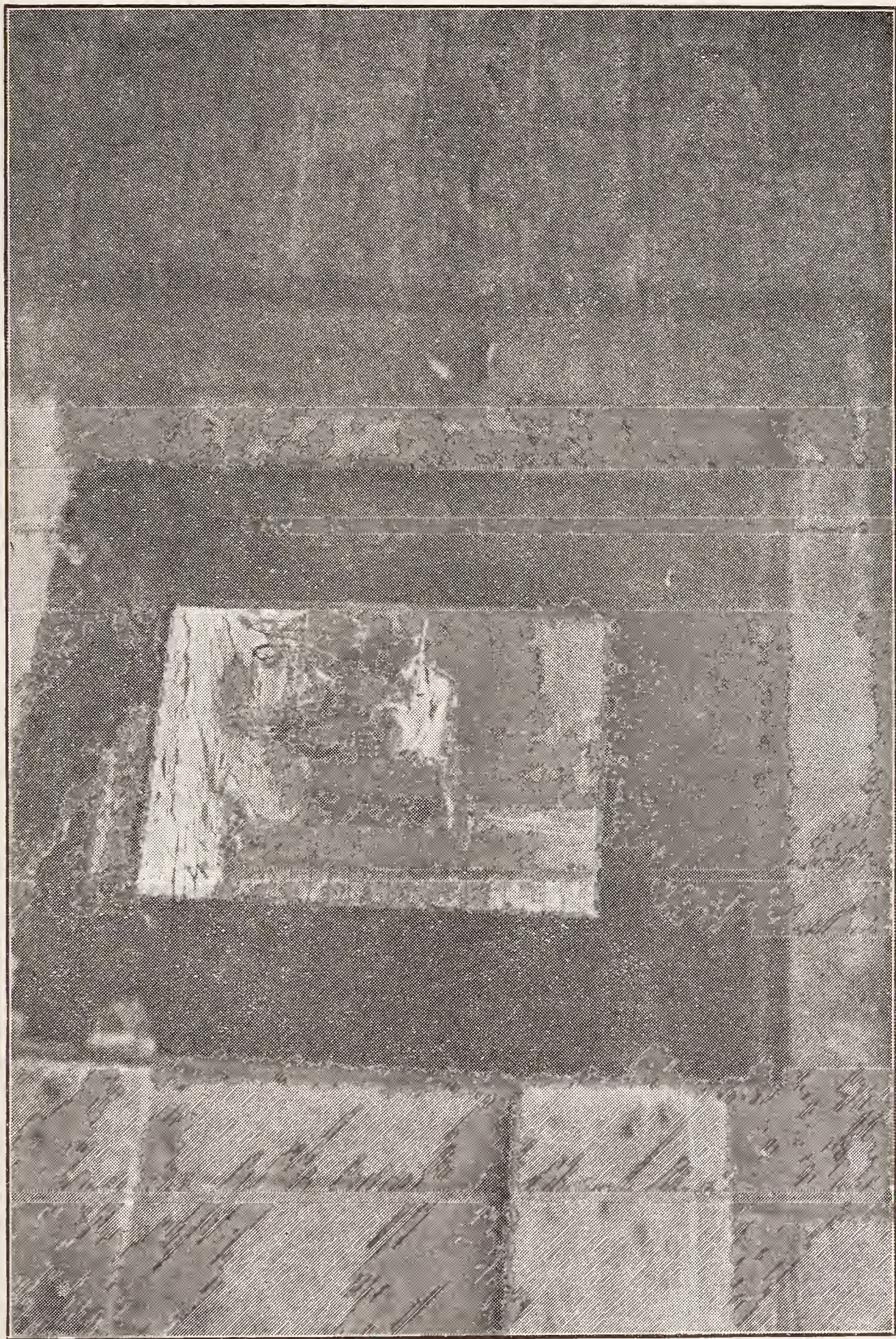
Although the committee now insist that milk sold from shops shall be stored in special receptacles, yet there can be little doubt that the risk of contamination in certain cases is considerable. General dealers should not be permitted to sell milk.

No informal samples of milk were purchased. One hundred and thirty-two formal samples were taken and 11 were adulterated or otherwise tampered with. Five examinations were made to discover the presence of dirt and in each of the five samples of milk cow dung was present in an amount varying from 4 to 22 grains per gallon.

Table 12 shows the results of the analysis of milk samples and the magisterial proceedings are set out in table 51. The number and nature of samples taken during the year are given on table 13. The results of the proceedings are not calculated to deter persons from adultering food.

One hundred and twenty-seven samples of milk were analysed during the year. In no instance was any preservative discovered. No sample of preserved cream was purchased for analysis. No instance of an infringement of the requirements as to labelling was detected. For a considerable portion of the year 1919 the sale of preserved cream was prohibited.

No bacteriological examination has been made of milk sold within the borough, and no steps are taken to prevent the sale of tuberculous milk.



MILK (Mothers and Children) Under the powers conferred by this order the Council has distributed 31,000 lbs. of full cream sweetened milk powder,
ORDER, 1919.

Food parcels containing flour, peas, margarine, cocoa, cheese, oatmeal, rice and bacon to the value of about seven shillings each were distributed during 1919 to the total value of £830.

All the food is given out on the certificate of the medical officer of health after enquiry has been made into the home circumstances. The maternity centres are the depots for distribution, and mothers to whom parcels are given are expected to bring their children to the centre at regular intervals.

A municipal abattoir is in a central position, and has in connection with it cold air stores. Five thousand, three-hundred and five beasts, 579 calves, 7,702 sheep, and 4,356 pigs were killed in the public slaughter house during the year. No utilisation is made of the offal or other waste products. One private slaughterhouse still remains in the borough and is unsuitable and insanitary. The licensee keeps a register of animals slaughtered and makes a weekly return to the medical officer of health. Two thousand and sixty pigs were killed in the private slaughter house during the year.

An inspection of meat exposed for sale in shops is regularly carried out.

Table 11 shows the number of animals found on slaughter to be diseased and the approximate weights of meats condemned at the abattoir, and at the private slaughterhouse.

No definite epidemic of food poisoning occurred in the borough during 1919, but it is almost certain that the majority of the 35 deaths which occurred from diarrhoea and enteritis can be directly attributed to infected food.

WORK PLACES.

The inspection of factories is in the hands of the factory
 FACTORY inspector appointed by the Home Office. Any act, neglect
 INSPECTION. or default which can be dealt with under the Public health
 Acts is referred to the Local Authority. Table 14 gives a
 list of matters so referred during 1919. The necessary alteration, with one
 exception, had been carried out at the end of the year.

The number of workshops registered is 198. These were
 WORKSHOPS. visited on 248 occasions, and as a result the defects shown
 in table 15 were discovered and in due course remedied.

Twelve workplaces are registered, the trades carried on
 WORKPLACES. being in one instance that of a plumber, in one a joiner,
 in three a wheelwright, in three a smith, in two a mason.
 Two cabyards are registered.

Several of the workshops and workplaces were closed temporarily
 owing to the war.

Occupiers of factories, workshops or any place from
 OUTWORKERS. which work of certain kinds is given out are compelled to
 keep a list of outworkers employed by them, and to send a
 copy of the list to the Local Authority on or before the 1st February and
 August in each year. Six lists referring to ten persons were made out by
 employers during the year. None of the lists were sent in by the required
 dates. The outworkers were visited on 16 occasions; the surroundings
 under which the work was being done were found on the whole to be satis-
 factory.

Tables 16 to 20 furnish the returns annually required by the Home
 Office.

SANITARY ADMINISTRATION.

The three assistant medical officers inspect and re-
 WORK CARRIED examine school children, they have charge of patients in
 OUT BY THE the corporation hospitals, they attend the school clinic,
 VARIOUS maternity centres, tuberculosis dispensary, and the out-
 MEMBERS OF patient department for venereal diseases. They also
 THE STAFF. conduct the examinations of pathological material in the
 laboratory. The senior assistant medical officer is deputy
 medical officer of health.

The inspector of nuisances generally directs the work of the assistant
 inspectors, supervises the conversions of closets to the water carriage
 system, and is available for special investigations.

The four assistant inspectors of nuisances are district inspectors.

The nurses are employed in visiting houses in which a birth has
 occurred, in the supervision of midwives, in the medical inspection of school
 children, in following up cases of defect, and in the daily survey in the
 schools. They take part in the treatment of children at the school clinic,
 and act as tuberculosis nurses. They investigate cases of notifiable diseases,
 still births, and all deaths of children under five years of age. They also
 attend the maternity centres.

BYE-LAWS AND The acts and regulations in force in the borough were
 REGULATIONS. tabulated in the report for the year 1914.

BOROUGH This institution at Peasley Cross has on several occasions
 ISOLATION been enlarged and has floor space for about 100 patients.
 HOSPITAL. There are, however, under treatment at times as many
 as 180 patients.

There is no resident medical officer. Cases of scarlet fever,
 diphtheria, typhoid fever, puerperal fever, ophthalmia and venereal diseases
 are accepted, and other diseases such as cerebro spinal fever, poliomyelitis,
 measles and whooping cough, influenza, pneumonia are admitted as occasion
 demands. The institution is totally inadequate to cope with the needs of the
 district, and there is, moreover, an arrangement whereby patients are
 taken in from the adjoining urban district of Haydock. There is practically
 no means whereby observation cases, and instances of cross-infection can
 be isolated. Many of the patients are treated by their own practitioners,
 and are then expected to pay for the services rendered. There is no theatre

for operations, and the living, dining, and sleeping accommodation for the staff is totally inadequate. usually a number of nurses have to be provided with rooms outside the institution. Under these circumstances it is not a matter for surprise that the administration of the institution is a difficult problem.

This is a modern institution providing accommodation
 ECCLESTON for 70 persons suffering from pulmonary tuberculosis.
 HALL There are three pavilions and four double bedded shelters
 SANATORIUM. in grounds of about 20 acres. There is a resident medical
 officer.

This is an old and unsuitable structure, composed of an
 OLD WHINT administrative block made by the adaptation of two
 HOSPITAL. cottages, and two pavilions, the newer of corrugated iron,
 the older of wood. The building was intended to be used
 as a small pox hospital. At the present time about 50 maternity and
 infant welfare patients are under treatment. There is no resident medical
 officer.

It is unquestionable that many lives might be saved, and permanent injury to health averted by the provision of adequate hospital accommodation and specialist treatment for persons suffering from the more serious forms of illness. Further, it is certain that the majority of cases of pneumonia, epidemic diarrhoea, convulsions, wasting diseases in children, diseases of bones and joints, and other diseases likely to cripple or maim cannot be satisfactorily nursed in the average working class home, even if adequate nursing facilities were in existence. The tentative steps taken by the Town Council to provide hospital treatment for cases of measles and wasting diseases in infants have furnished abundant evidence that an appreciable saving of life is likely to follow more extensive use of hospital accommodation.

The staff on duty in the hospitals at the end of December consisted of a matron, 10 sisters, 13 staff nurses, 27 probationers, 48 female and twelve male servants.

The disinfecting station is situated at Peasley Cross
 DISINFECTING hospital. Visits to 1,420 houses were made for the removal
 STATION. of clothing and bedding for disinfection by steam. A
 list of the articles disinfected is given in table 27.

Infected rooms are now sprayed with a solution of formalin and closed for four hours. During the year 1,654 rooms were disinfected.

CORPORATION Two motor ambulances are kept at the Peasley Cross
AMBULANCES. hospital to convey patients to either of the corporation hospitals. During the year the total distance covered was 23,500 miles.

MORTUARY. The public mortuary is situated at the rear of the town hall, and consists of a brick building containing two rooms. Twenty-eight bodies have been placed in the mortuary during the year, and eight post-mortem examinations were conducted.

LABORATORY. A well-equipped laboratory is provided at the town hall. Examination of material from suspected cases of disease is carried out free of charge. The Council now arrange facilities at Liverpool University for the diagnosis of cases of venereal disease, including the Wasserman reaction for syphilis.

The number of specimens examined during the year are shown in table 28.

Anti-toxins are provided free for persons suffering from diphtheria and other diseases.

RATS AND After some consideration, the Council decided to under-
MICE take systematically the destruction of rats in the borough,
DESTRUCTION and in October, 1919, Mr. T. J. Kenny, M.R.C.V.S., was
SCHEME. appointed executive officer. Early in November, two whole time rat catchers were engaged from amongst several local applicants, and work was begun on the 10th December, 1919.

In the first place it was decided to use mainly ferrets, dogs and traps, and to concentrate activities to business premises, cellars, store-rooms, stables, piggeries and refuse heaps. The total number of carcasses actually handled up to the end of the year was 327, but a number were killed beneath floorings and could not be recovered. All the rats killed were of a brown variety, and apparently healthy. There was a well marked preponderance of females to males. The carcasses were disposed of by burning.

It was arranged to charge the occupiers of premises 1/- for each rat killed. Up to the end of the year little use had been made of poisons or gas methods of destruction.

PREVALENCE AND CONTROL OF INFECTIOUS DISEASES.

No instance of small pox was notified during the year.
 SMALL POX. Twelve contacts with cases occurring in other districts were kept under observation.

The number of notifications and the number of deaths occurring from small pox in the borough since 1873 are given in table 43.

Although the town has been comparatively free from the disease for several years it is to be feared that the increasing number of the population unprotected by vaccination will afford suitable material for an extensive epidemic. Table 29 shows the extent of vaccination in St. Helens since 1897.

One case of acute poliomyelitis was notified and permanent paralysis ensued, but no death was reported to be due to the disease.

CEREBRO SPINAL MENINGITIS. Three cases of cerebro-spinal fever were notified but proved to be instances of influenza. Each patient died.

ENCEPHALITIS-LETHARGICA. Two notifications were received, both persons died, one from influenza, the other from tubercular meningitis.

DIPHTHERIA. During the year 237 cases of diphtheria and membranous croup with 25 deaths have been reported, giving an attack rate of 2.2, and a death rate of 0.24 per thousand of the population.

Table 31 sets out the record for previous years.

All the cases notified were removed to hospital. Table 30 gives a classification of the cases and the deaths according to the age of patients.

Arrangements were made for the routine bacteriological examination of the nose and throat of all persons living in the house from which a case of diphtheria was notified. In all 4,476 specimens were taken, mainly by health visitors, and examined during the year, and of this number 187 showed the presence of the organism causing diphtheria. The "carrier" cases thus discovered were isolated either at home or in hospital, and treated with diphtheria anti-toxin and local applications of antiseptics.

School children attending classes in which diphtheria had occurred were subject to routine swabbing of the throat.

Seventy-two cases of erysipelas were notified, and three deaths were stated to have taken place from the disease. Three cases were removed to the isolation hospital.

ERYSIPELAS.

During the year 221 notifications of scarlet fever were received and nine deaths were reported. The numbers for previous years are shown in table 31. The number of cases removed to hospital was 220. Table 33 gives a classification of the cases and deaths at various ages from scarlet fever during the year.

SCARLET
FEVER.

Seven cases of typhoid fever with two deaths were notified during 1919, and all were removed to hospital.

TYPHOID
FEVER.

Table 32 gives the record for previous years.

Seventeen women were reported during the year to be suffering from puerperal fever, and eight deaths were stated to be due to the disease. Fifteen of the cases notified were removed to hospital. Table 32 gives figures relating to cases reported in previous years.

PUERPERAL
FEVER.

Seventy-six children were notified to be suffering from ophthalmia. Thirty-three of the children were nursed at home, being attended by private practitioners and nurses from the school clinic, while of the more severe cases 26 were admitted into the isolation hospital. Of the 76 children notified as cases of ophthalmia, in 61 instances both eyes were uninjured at the end of the illness; in two instances one or both eyes showed opacities, one child was blind in both eyes, five could not subsequently be traced, and seven died. Of those that died, four were totally blind.

OPHTHALMIA.

Measles is notifiable in the borough, according to the provisions of the Public Health (Measles and Whooping Cough, St. Helens) Regulations, 1914. The expected biennial epidemic began during the second week of October, 1919. The number of notifications and the deaths each week until the end of the outbreak in 1920 are set out in table 54. Home nursing was provided by utilising the services of nurses at the school clinic and by drawing on the staff of the corporation hospitals. A pavilion at the isolation hospital was set aside for children seriously ill, and for those who could not be nursed satisfactorily at home. The type of the disease was moderately mild

MEASLES.

respiratory complications were not common, but there was generally a well marked rash. From 4th October, 1919, to 12th June, 1920, 3,348 notifications were received, and 63 deaths were attributed to the outbreak, 347 children were nursed at home, and 124 in hospital.

More than the usual importance attaches to the course of this outbreak, because for the first time "contacts" were allowed to attend school. For many years it had been the practice in St. Helens rigorously to exclude from school all children coming from a house in which infectious disease occurred. In opposition to this action there were those who considered any benefit accruing from school exclusion was largely diminished by the opportunities for infection arising from the association of the children in the home, at play, and in places of amusement.

On the advice of the medical officer of health it was decided to try the experiment of permitting all contacts to attend school under strict nursing supervision. The staff of health visitors was increased so that the borough might be divided up into twenty districts, each containing one or more schools, with a total of about 1,000 children in attendance. Arrangements were then made so that every child in each class could be rapidly surveyed by a nurse during the morning session, and particular care could be bestowed on children known to be a contact with infectious disease. This daily visiting of each class made it easy to send home any child who seemed to be ailing, and also enabled the medical officer to keep more closely in touch with any attempt of the disease to gain an entrance into the school. It may be stated at once that at no time did the epidemic appear to spread through the agency of the schools. To the thoroughness of the nursing supervision must be attributed the success of the experiment.

The number of cases of measles reported during the year 1919 was 913, with 5 deaths. Table 31 gives the record for previous years.

The deaths at various ages during 1919 are shown in table 34.

WHOOPING Notifications of 206 cases of whooping cough were
COUGH. received, and 7 deaths were reported. Table 31 gives a
record of the extent of the disease in other years.

DIARRHŒA. During 1919, 35 deaths were attributed to diarrhœa
or enteritis, and of these 27 occurred in children under two
years, being a death rate from these diseases of 10.0 per
thousand births.

Table 35 shows the deaths at certain age periods from both diseases.

The figures for other years are given in table 32.

The steps taken to prevent the loss of life from these diseases were given in the report for 1915, and need not be re-stated.

PNEUMONIA. During the year 322 notifications of pneumonia were received, and 186 deaths were certified to be due to the disease. Forty-two patients were treated in the isolation hospital.

DYSENTERY. In all 54 instances of the disease were notified, but no death was recorded. All the cases on investigation were found to have been first infected outside England.

MALARIA. This disease was notified on 158 occasions. One death was reported. Enquiries show that all the patients were suffering from chronic malaria, contracted abroad. Mosquitos capable of transmitting malaria are to be found in the locality, therefore under suitable conditions an outbreak of the disease might occur.

TRENCH FEVER. One notification of this disease was received during the year.

TUBERCULOSIS. During the year, 162 notifications of pulmonary tuberculosis were received. 12 of the cases had been previously notified, 99 deaths from the disease were recorded. In two instances notifications were first received after death had taken place.

Table 32 shows the number of deaths stated to be due to the disease in past years.

Table 36 shows the division in age and sex groups of the primary notifications received.

The steps which are taken to prevent the spread of the disease are similar to those set out in the annual report of 1914.

Table 38 gives a record of cases admitted into Ecclestone Hall.

TUBERCULOSIS. Fifty-seven notifications of tuberculosis other than pulmonary were received during 1919. One of the cases NON-PULMONARY. had been previously notified. Thirty-one deaths were recorded. Table 32 shows the number of deaths attributed to forms of tuberculosis other than pulmonary since 1873.

Up to the present, hospital accommodation has not been generally provided by the Local Authority for instances of non-pulmonary tuberculosis. Table 37 gives the age and sex distribution of the notifications received. Steps similar to those previously detailed are taken to follow up and prevent the spread of infection.

The tuberculosis dispensary is situated in Claughton TUBERCULOSIS Street, and is now inadequate for the needs of the district. DISPENSARY. The number of patients attending the dispensary is set out in tables 39 and 40.

The nurses made 159 first visits and 1,244 re-visits to the notified cases of tuberculosis.

St. Helens was one of the first towns to provide free VENEREAL facilities for the diagnosis and treatment of venereal DISEASES. diseases, and in 1919 further progress was made. A complete scheme for the treatment of persons suffering from venereal diseases has been approved by the Local Government Board and is now in operation.

The scheme of the Council to prevent these diseases dates from 1915, when patients were first taken into the corporation hospital at Peasley Cross. The out-patient department is at the dispensary in Claughton Street. Men are treated on Mondays from 6 to 7 in the evening, women and children on Wednesdays from 7 to 8 p.m. The dispensary is open daily from 9 to 5-30 for advice, irrigation and prophylactic treatment.

A small pavilion accommodating 6 male and 6 female patients at Peasley Cross isolation hospital is used for persons needing in-patient treatment.

Bacteriological examinations are carried out at the Liverpool University. Practically all the specimens examined are taken at the dispensary. Figures relating to the number of patients treated are given in table 26. Three practitioners have been supplied with salvarsan substitutes. The Council from the first has been strongly of the opinion that the prevention of the diseases lies in the dissemination of knowledge of the means whereby the risk of infection can be obviated, and to this end the dispensary is open daily for preventative treatment and advice. A leaflet setting out the steps of self-disinfection can be obtained from the dispensary or from the medical officer of health.

On December 22nd, 1919, information was received that
 ANTHRAX. two consignments of shaving brushes, numbering 63 in all
 had been sent to eight firms in St. Helens, and that there
 was reason to believe that certain of the brushes might be infected with
 anthrax. Steps were at once taken to trace the articles, but owing to the
 interval which had elapsed between the delivery of the brushes in St. Helens
 and the receipt of the warning it was only possible to collect 32 ; of this
 number 16 were found to be infected with anthrax.

About a week later 12 more of the brushes were discovered, and sub-
 mitted to bacteriological examination, 4 were infected. Although adver-
 tisements were published widely the remaining 19 could not be traced.

No instance of human infection by anthrax was reported even though
 some of the brushes had been in daily use in barbers' shops.

Ninety deaths during 1919 were stated to be due to
 CANCER. cancer and malignant disease. Table 32 gives the figures
 for previous years.

Three hundred and fifty deaths were certified to be due
 BRONCHITIS. due to respiratory diseases other than tuberculosis. The
 number of deaths from these diseases in previous years
 is shown in table 31.

The number of deaths which took place from violence was 45.

INQUESTS. Fifty-eight inquests were held and 6 post mortem exam-
 inations were carried out.

UNCERTIFIED DEATHS. In no less than 50 instances a death was registered
 without the cause of death being certified by a medical
 practitioner.

MATERNITY AND CHILD WELFARE.

At the close of 1919, 33 women gave notices of their intention to practice as midwives within the borough during the ensuing year. The qualifications of these women were : Central Midwives Board certificate—17, other recognised certificate—10, untrained—6.

The health visitors paid 40 routine and 38 special visits to supervise the practice of midwives. Although the number of untrained midwives is steadily decreasing, midwifery is not sufficiently remunerative to attract well qualified capable women.

Of the total births occurring in the borough 99 per cent were attended by midwives. No instance was discovered of a birth being attended by an uncertificated midwife.

STILL-BIRTHS. The number of still births notified during the year was 45, about a tenth of the correct figure.

Under the rule issued by the Central Midwives Board, a midwife must advise that medical assistance shall be obtained in any case where abnormal conditions occur during the confinement or in the lying-in period. Medical assistance was said to be required on 1,039 occasions.

According to the requirements of the Midwives Act, 1918, the Council now pays the fees of medical men called in to assist midwives. Under this heading £1,409 was expended during 1919. The assurance that the services of a medical practitioner will be available when necessity arises, must be a comfort to many expectant mothers and the payment of the fees of the medical men practically amounts to an additional maternity benefit.

Complete details of the scheme for maternity and infant welfare work carried on in the borough were given in the annual report for the year 1915, and need not now be re-stated.

Maternity and infant welfare centres are now established at the town hall (Parade Street) every afternoon except Saturdays, at Oxford Street on three afternoons, at Marshalls Cross once a week, and at Elizabeth Street twice weekly.

The treatment of minor ailments and of dental defects of necessitous mothers, and of children under school age is carried on at the school clinic in Claughton Street.

The health visitors paid 1,455 visits to expectant mothers, 112 expectant mothers were admitted for treatment into the corporation hospitals, and expectant mothers made 801 attendances at the centres.

HOME The health visitors made 2,970 first visits and 17,904
VISITS. other visits to infants and children under 5 years of age.

ATTENDANCES Nine thousand and eighty-four attendances were made
AT THE by mothers, and 9,440 by infants and children to the
CENTRES. infant welfare centres, and 417 mothers and children were
treated in the corporation hospital at Old Whint.

INFANT During the year there was no less than 316 deaths of
MORTALITY. infants under one year of age, giving a mortality of 117.6
per thousand registered births. Table 41 shows the
infant death rate in St. Helens since 1873, and also the
figures for England and Wales. Inquiry is made respecting every death
under five years of age.

The diagram on table 42 illustrates the natural increase of the population—the excess of births over deaths, and in table 43 other important figures are shown.

VITAL STATISTICS.

The number of births registered during 1919 was 2,609. BIRTHS. 86 occurring in other districts were transferable to St. Helens, and 8 occurring in the borough were transferred to other districts, making a total of 2,687. The birth rate for the year based on the total population was 25.5, showing an increase in the figures for the previous years. The chart on table 44 shows that an alarming decline has occurred in the birth rate for St. Helens since 1873; the rate for St. Helens however is still above that for the rest of the country. Table 45 gives the birth rate in the various wards of the town.

There were 87 illegitimate births registered, 44 occurring ILLEGITIMATE in other districts were transferable to St. Helens, and BIRTHS. 4 occurring in the borough were transferable to other districts, making a total of 127. The illegitimate birth rate was 1.2 per thousand of the population. Table 46 shows the proportion of illegitimate births during the past years.

The number of marriages during the year has been 924, MARRIAGES. giving a rate of persons married of 17.5 per thousand of the population. Table 47 shows the rate for past years.

The total number of deaths registered as having taken DEATHS. place within the borough during the year was 1,462. Of these 161 were deaths in St. Helens of persons usually resident in other parts, and were transferred by the Registrar General to the other districts to which they belonged; 220 deaths of persons usually living within the borough occurred in other places, giving a total of 1,521 as the actual number of deaths to be accepted in estimating the death rate for the year, and a recorded death rate of 15.0 per thousand of the estimated civil population. Table 48 gives figures for the borough since 1873.

The death rates in the different wards for 1919 are set out in table 49.

Figures relating to the causes of and ages at death during the year are given in table 50.

In addition to the usual monthly statements of births, deaths and infectious diseases many special reports have been made to the committee during the year by the medical officer of health.

HOUSING.

GENERAL In accordance with the instructions of the Ministry of
HOUSING Health a survey of the housing needs of the district was
CONDITIONS. begun in September, 1919, and completed by the end of
October.

The results of the enquiry showed that there were at that time in the borough, 17,963 dwelling houses, and of this number, 17,100 were for the working classes. Four new houses were erected during the year 1919, but at the end of the year none was being built.

The total population of St. Helens estimated on the basis of food registration was then thought to be 102,500, but a more recent estimate of the Registrar General gives a total of 105,000 persons. For many years previous to 1914 the population has shown a yearly increase of about a thousand, therefore after allowance for the low birth rate during the war and for migration it is reasonable to accept the estimate of 105,000.

There appears no reason to anticipate a reduction in the population.

It was considered that 4,630 houses for the working classes were needed within three years to meet the needs of the district.

OVER- The amount of overcrowding in St. Helens is a menace
CROWDING. to the health of the district. At the time of the survey it
was estimated that there were 4,200 houses with more than
two occupants per room, and that in 1,760 instances two
or more families were living in houses only intended for one family.

At the time of the last census in 1911 St. Helens had 16 per cent of overcrowding, it is now considered that there is 24 per cent.

The cause of the overcrowding is a long standing deficiency of houses suitable for the working classes.

No legal proceedings to deal with cases of overcrowding have been taken during the year, and none can usefully be instituted until new houses are provided.

FITNESS OF The general standard of housing in the district is low,
HOUSES. although in a few areas cottage property can be found of
good type. The defects more commonly met with in the
unfit houses are leaking roofs, and spouting, damp walls,
defective plaster, absence of pantry and wash boiler, insanitary surface of
yards, dilapidated ashplaces and insufficient yard space.

During 1919 no action was taken under the Housing Acts, but statutory notices under Public Health Acts were served in the cases of the more important defects. The chief difficulties in remedying nuisances are, firstly, the long interval which elapses between the discovery of the defect and the service of a statutory notice, secondly, the delay in instituting magisterial proceedings in cases of default.

UNHEALTHY AREAS. No area has yet been represented as unhealthy under parts 1 or 2 of the Housing Act of 1890. In the survey carried out in 1919 it was stated that three areas of approximately 47 acres in all, might have to be dealt with as unhealthy—the total number of houses in these areas is about 1,214, containing 6,918 persons.

At present there is no accommodation for the dispossessed.

POSITION WITH REGARD TO NEW HOUSES. The position with regard to new houses at the end of 1919 was that the Ministry of Health had sanctioned a loan for £44,200 to purchase the Windlehurst estate and had approved a site on that estate for the erection of 330 houses.

A large number of other sites in various parts of the borough had been submitted for the consideration by the Ministry but mainly on account of colliery subsidence were unsuitable.

Table 1.

Showing the position of the wards, the acreage, estimated population for 1919, and the density of each, calculated on the approximate area built upon.



The population, acreage, and density of persons in each ward.

WARD.	Population.	Area in acres.	Approximate Acreage unbuilt on.	Persons per Acre built upon.
1 North Ecclestone ...	13,326	235·439	135	133
2 South Ecclestone ...	12,914	621·625	448	74
3 Central	6,891	94·459	2	75
4 North Windle	13,257	697·084	447	53
5 South Windle	9,004	67·116	0	134
6 Hardshaw.....	12,537	342·684	160	68
7 East Sutton	12,595	1,312·319	1,190	103
8 West Sutton.....	11,206	2,429·151	2,300	87
9 Parr	13,279	1,484·550	1,394	147

Table 3.

The population of the borough at each census period.

Census of	*1801	*1811	*1821	*1831	*1841	1851	1861	1871	1881	1891	1901	1911
Eccleston ..	1,362	1,584	1,931	3,259	6,247	—	—	—	—	—	—	—
Sutton.....	1,776	2,114	2,329	3,173	4,095	—	—	—	—	—	—	—
Parr	1,183	1,405	1 523	1,942	3,310	—	—	—	—	—	—	—
Windle	3,252	4,294	4,820	5,825	6,918	—	—	—	—	—	—	—
St. Helens..	7,573	9,397	10,603	14,199	20,570	25,660	38 135	45,548	57,940	72,413	84,410	96,550

* Previous to 1851, the populations given are those of Eccleston, Sutton, Parr, and Windle, and are not strictly comparable to those of the present borough.

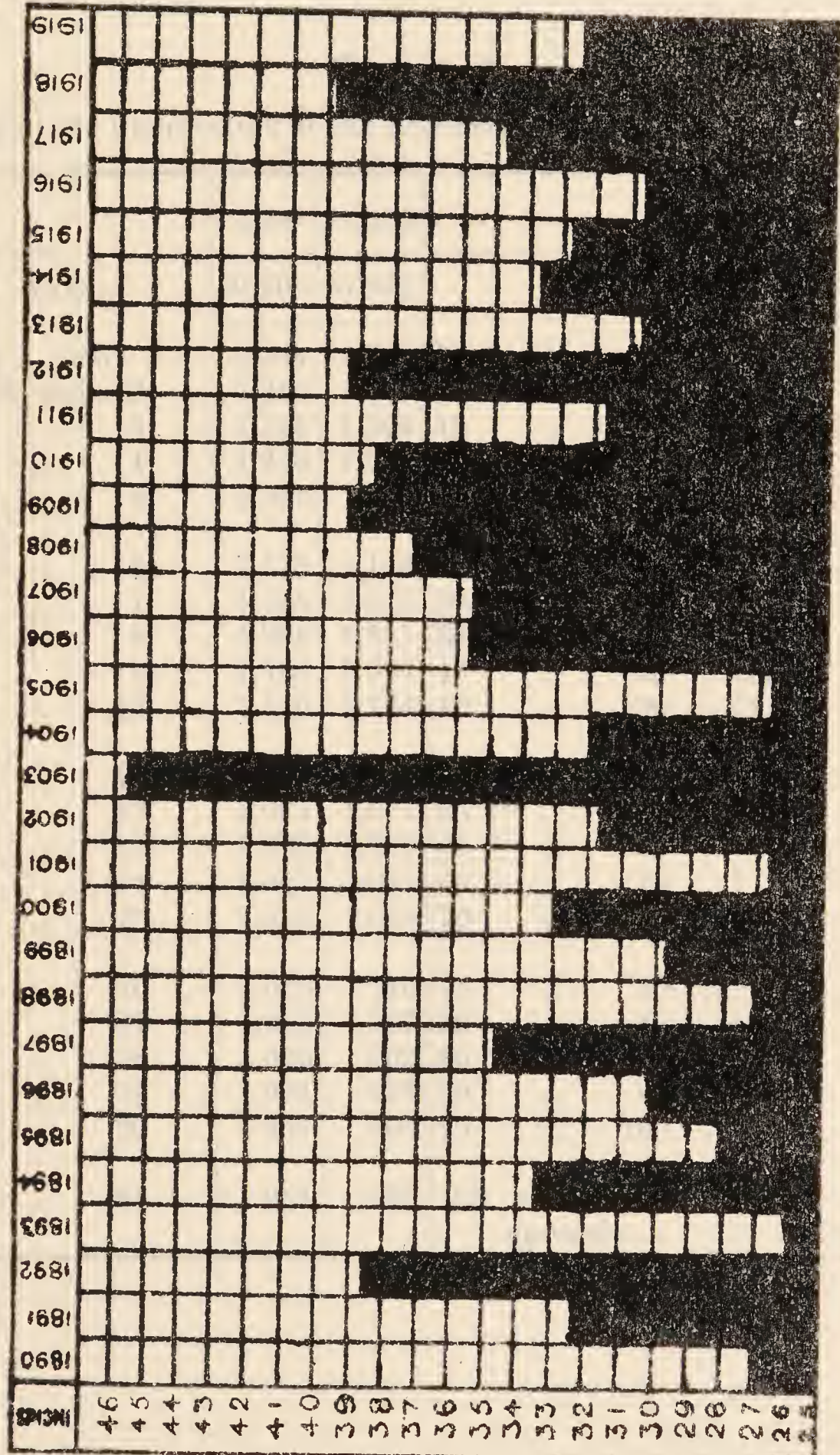
Table 4.

Population of the various wards as shown by census returns.

WARDS.	Area in Statute Acres (Land and Inland Water).	Families or Separate Occupiers.		POPULATION.				Institutions, Large Establishments, Vessels, etc., 1911 (included in (cols. 4 & 6).	
		1901	1911	1901	1911			Number	Popu-lation.
				Persons	Persons	Males	Females		
1.	2.	3.	4.	5.	6.	7.	8.	9.	10.
St. HELENS....	7,284	15,390	17,833	84,410	96,551	50,309	46,242	28	1,981
North Eccleston...	235·43	—	2,253	10,551	12,252	6,425	5,827	—	—
South Eccleston...	621·62	—	2,337	8,835	11,873	6,036	5,837	—	—
Central	94·4	—	1,077	5,235	6,336	3,457	2,879	12	369
North Windle	697·08	—	2,446	11,457	12,188	6,057	6,131	—	—
South Windle	67·11	—	1,533	8,315	8,279	4,261	4,018	1	59
Hardshaw	342·68	—	2,160	9,690	11,526	6,128	5,398	6	250
East Sutton	1,312·31	—	2,179	9,524	11,584	6,186	5,398	3	133
West Sutton	2,429·15	—	1,653	9,524	10,304	5,278	5,026	5	1,040
Parr	1,484·53	—	2,195	10,014	12,209	6,481	5,728	1	130

Table 2

TOTAL RAINFALL IN INCHES IN ST. HELENS SINCE 1890



II. IDENT

00001 1000000 2000000 3000000 4000000 5000000 6000000 7000000 8000000 9000000 10000000



Table 5.

The age and sex distribution of the population at the census taken in 1911

				Males	Females					Males.	Females
ALL AGES				50,309	46,242						
Under 1 year	..			1,344	1,301	Under 5 years	...			6,462	6,285
1 and under 2	...			1,250	1,269	5 and under 10	...			5,918	5,767
2	..	3	...	1,348	1,325	10	..	15	...	5,419	5,332
3	..	4	...	1,276	1,208	15	..	20	...	5,165	4,475
4	..	5	...	1,244	1,182	20	..	25	...	4,755	4,021
5	..	6	...	1,178	1,146	25	..	30	...	4,271	3,773
6	..	7	...	1,234	1,213	30	..	35	...	4,001	3,440
7	..	8	...	1,206	1,187	35	..	40	...	3,635	3,080
8	..	9	...	1,150	1,097	40	..	45	...	2,812	2,487
9	..	10	..	1,150	1,124	45	..	50	...	2,424	2,154
10	..	11	..	1,106	1,091	50	..	55	..	1,917	1,690
11	..	12	..	1,083	1,077	55	..	60	...	1,411	1,345
12	..	13	..	1,103	1,084	60	..	65	..	910	953
13	..	14	..	1,062	1,041	65	..	70	..	652	651
14	..	15	..	1,065	1,039	70	..	75	...	349	478
15	..	16	..	1,033	946	75	..	80	...	141	231
16	..	17	...	1,058	887	80	..	85	...	51	64
17	..	18	...	1,036	862	85	..	90	...	12	14
18	..	19	...	1,081	878	90	..	95	...	4	2
19	..	20	..	957	902	95	..	100	...	—	—
20	..	21	..	951	835	100 years and upwards	...			—	—

Table 7.

The number of houses with the various types of sanitary conveniences existing in the borough.

Year.	Water closet.	Tub and pail closet.	Privy midden.	Total.
1907 ...	6,106	7,150	5,154	18,410
1908 ...	6,503	7,120	4,907	18,530
1909 ...	6,718	7,071	4,795	18,584
1910 ...	7,041	7,028	4,616	18,685
1911 ...	7,626	6,863	4,338	18,827
1912 ...	9,205	5,734	4,019	18,958
1913 ...	10,493	5,058	3,542	19,093
1914 ...	12,316	4,058	2,829	19,203
1915 ...	13,100	3,704	2,529	19,333
1916 ...	13,298	3,592	2,472	19,362
1917 ...	13,455	3,422	2,353	19,230
1918 ...	13,504	3,401	2,325	19,230
1919 ...	13,794	3,259	2,177	19,230

Table 8.

The number of conversions to the water carriage system completed each year since 1904.

Year.	Privies.	Tub and pail closets.	Total.
1904	69	67	136
1905	80	64	144
1906	47	19	66
1907	237	125	362
1908	243	24	267
1909	106	38	144
1910	179	33	212
1911	270	129	399
1912	301	691	992
1913	460	646	1,106
1914	691	976	1,658
1915	300	380	680
1916	57	112	169
1917	45	103	148
1918	18	21	39
1919	148	142	290

Table 9.

Number of notices served

Reason for Inspection and Notice.	Preliminary notices served	Statutory notices served	Number remedied	Number <i>not</i> remedied at end of year.
To clean choked drains and w.c.'s.. ..	354	99	354	0
„ repair or relay defective drains ..	85	7	83	2
„ drain dwelling-houses.. ..	1	0	1	0
„ disconnect and ventilate drains ..	3	3	3	0
„ disconnect downspouts.. ..	1	0	1	0
„ repair or lengthen waste pipes to slopstones	84	13	77	7
„ provide waste pipes to slopstones ..	34	19	30	4
„ provide slopstones	15	10	14	1
„ repair w.c.'s, baths, basins, lavatories and cisterns	291	24	291	0
„ repair roofs of dwelling-houses ..	294	114	269	25
„ cleanse backyards, privies & passages	1	0	1	0
„ cleanse and whitewash filthy dwellings	13	1	13	0
„ provide doors to privies, pail closets, and ashpits	394	83	382	12
„ repair or rehang doors to pail closets, ashpits and privies	67	17	62	5
„ repair privies and ashpits	58	13	52	6
„ repair eaves and downspouts	229	34	208	21
„ provide eaves and downspouts ..	74	40	45	29
„ repair pavement, etc., in yards ..	163	56	135	28
„ re-hang windows	171	48	130	41
„ repair pavement and floors in dwelling- houses	110	55	102	8
„ remove fowls, pigeons, etc., from near dwellings	2	0	2	0
„ remove pigs	2	0	2	0
„ remove rubbish	8	1	8	0
„ remove manure.. ..	6	0	6	0
„ reconstruct middensteads	8	0	8	0
„ clean foul ditches and cesspools ..	1	0	1	0
„ provide or repair ashboxes	28	0	28	0
„ remove nuisance due to overerowding	13	1	11	2
„ replaster walls or ceilings of dwellings	349	168	246	103
„ prevent, dampness in dwellings ..	100	41	88	12
„ remedy defects in workshops.. ..	5	0	5	0
„ remedy defects in cowsheds & dairies	4	0	4	0
„ provide water supply	8	0	8	0
„ remedy miscellaneous nuisances ..	390	196	324	66
„ convert to water carriage system ..	—	428	290	138
Totals	3366	1471	3284	510

Table 10.

Metric tons of total solids per square Kilometre deposited during the year 1919.
A metric ton per square Kilometre is approximately 9lbs. per acre.

LONDON	Meteorological Office	100·68
	Embankments Gardens	249·36
	Finsbury Park	132·93
	Ravenscourt Park.....	169·46
	Southwark Park	220·57
	Wandsworth Common	75·96
	Golden Lane	146·33
	Malvern	36·57
	Southport (Hesketh Park)	79·35
	St. Helens	174·48

Table 11.

Number of animals slaughtered and amount of diseased meat destroyed

ABATTOIR.					PRIVATE SLAUGHTER HOUSES.			
1918	Killed.	Diseased.		Weight in lbs.	Killed.	Diseased.		Weight in lbs.
		Tuber- culosis.	Other diseases.			Tuber- culosis.	Other diseases.	
Beasts	5,305	365	478	31,293	—	—	—	—
Calves	579	—	3	25	—	—	—	—
Sheep.....	7,702	1	55	1,295	—	—	—	—
Pigs	4,356	60	66	4,249	2,060	95	278	877

About 7,978 lbs. of fish, 708 lbs. rabbits and poultry, 561 lbs. ham, 1,725 lbs. fruit and vegetables, and 219lbs. of other foodstuffs were found to be unsound and were destroyed.

Table 12.

The results of analyses of milk samples.

Per Cent.		FAT.										Total.
		Under 2·7	2·8	2·9	3·0	3·1	3·2	3·3	3·4	3·5	Over 3·5	
NON-FATTY SOLIDS.	Under 8·1										3	3
	8·2											
	8·3											
	8·4							1	1		4	6
	8·5			1		1					5	7
	8·6									1	13	14
	8·7					1	2	1	2	4	16	26
	8·8					1	2	2	1	1	10	17
	8·9		1		2		1	3	5	1	7	20
	9·0	1				3		3	1		6	14
	Over 9·0					1		1	4	2	12	20
Total...		1	1	1	2	7	5	11	14	9	76	127

Note:—5 samples of new milk were analysed to ascertain amount of dirt.

Table 13.

Results of analyses of other foods.

				Number of samples						Number of samples	
				Exam-ined.	Adul-terated					Exam-ined.	Adul-terated
Milk...	...	...	...	132	11	Sugar	..	...	...	2	0
Butter	...	...	...	0	0	Chopped Suet	..	...	...	3	0
Cheese	...	...	...	0	0	Confectionery & Jam				0	0
Margarine	...	...	...	0	0	Pepper	...	...	...	1	0
Lard	..	.	.	0	0	Sausage	...	...	...	0	0
Bread	...	...	...	0	0	Beer	...	...	...	0	0
Flour	...	...	...	0	0	Spirits	...	...	...	0	0
Tea ...	...	...	...	6	0	Drugs	...	...	...	0	0
Coffee	...	...	...	0	0	Other articles	...	...	...	1	0
Cocoa	...	...	...	0	0	TOTAL	...	...	...	143	11

Table 14.

Defects discovered in Factories.				1919.
Insufficient sanitary accommodation	...	...	...	4
No screens to sanitary conveniences	...	...	...	0
No suitable partitioning of sanitary conveniences	...	...	...	0
No intervening space between closets and machine room	...	...	...	2
Limewashing of walls and ceilings required	...	...	...	3
No inside fastens on doors of women's closets	...	...	...	0
Closets insufficiently ventilated	...	...	...	0
No fire escape	...	...	...	3

Table 15.

Defects discovered in workshops.				
Limewashing of walls and ceilings required	...	...	...	5

Table 16.
HOME OFFICE TABLES.

1.—Inspection.

Including inspections made by sanitary inspectors or inspectors of nuisances.

Premises.	Number of		
	Inspections.	Written Notices.	Prosecutions.
Factories (Including Factory Laundries.)	12	5	—
Workshops (Including Workshop Laundries.)	268	12	—
Workplaces	7	—	—
Total	287	17	—

Table 17.

2.—Defects found.

Particulars.	Number of Defects.			Number of Prosecutions.
	Found.	Remedied.	Referred to H.M. Inspector.	
<i>Nuisances under the Public Health Acts :—*</i>				
Want of cleanliness	5	5	—	—
Want of ventilation	1	1	—	—
Overcrowding	—	—	—	—
Want of drainage of floors	—	—	—	—
Other nuisances	1	1	—	—
Sanitary accommodation.	insufficient	2	2	—
	unsuitable or defective..	—	—	—
	not separate for sexes ..	—	—	—
<i>Offences under the Factory & Workshop Acts :</i>				
Illegal occupation of underground bake-houses (s. 101)	—	—	—	—
Breach of special sanitary requirements for bakehouse (ss. 97 to 100).	2	2	—	—
Other offences	1	1	—	—
Total	12	12	—	—

* Including those specified in sections 2, 3, 7 and 8 of the Factory and Workshop Act, 1901, as remediable under the Public Health Acts.

Table 18.

3.—Home work.

Nature of Work.	OUTWORKERS' LISTS, SECTION 107.			
	Lists received from Employers.			Notices served on Occupiers as to keeping or sending lists.
	Sending twice in the year.			
	Lists	Outworkers		
Con- tractors.		Work- men		
1	2	3	4	5
Wearing Apparel—				
Making, etc.	6	1	3	—
Cleaning and washing	—	—	—	—
Household linen	—	—	—	—
Lace, lace curtains and nets	—	—	—	—
Curtains and furniture				
hangings	—	—	—	—
Furniture and upholstery..	—	—	—	—
Electro-plate	—	—	—	—
File making	2	—	—	—
Brass and brass articles ..	—	—	—	—
Fur pulling	—	—	—	—
Cables and chains	—	—	—	—
Anchors and grapnels ..	—	—	—	—
Cart gear	—	—	—	—
Locks, latches and keys..	—	—	—	—
Umbrellas, etc.	—	—	—	—
Artificial flowers	—	—	—	—
Nets, other than wire nets..	—	—	—	—
Tents	—	—	—	—
Sacks	—	—	—	—
Racquet and tennis balls	—	—	—	—
Paper, etc., boxes, paper				
bags	—	—	—	—
Brush making	—	—	—	—
Pea picking	—	—	—	—
Feather sorting	—	—	—	—
Carding, etc. of buttons etc	—	—	—	—
Stuffed toys	—	—	—	—
Basket making	—	—	—	—
Chocolates and sweetmeats	—	—	—	—
Cosaques, Christmas crac-				
kers, Christmas Stockings				
etc.	—	—	—	—
Textile weaving	—	—	—	—
TOTAL ..	8	1	3	—

Table 19.

4.—Registered workshops.

Important classes of workshops, such as workshop bakehouses may be enumerated here.	Workshops on the Register (s. 131) at the end of the year.	Number.
	(1)	(2)
	Dressmakers and mantle making	39
	Milliners	20
	Tailors	15
	Hosiery Knitters	8
	Joiners, builders, cabinet-makers and plumbers, etc. ..	14
	Blacksmiths, wheelwrights, coach builders and masons ..	8
	Weighing machine repairers	2
	Cloggers and boot repairers	47
	Cycle makers	3
	Cooper	1
	Tripe Dresser	5
	Herbal Brewer	3
	Pearl Ash Manufacturer	1
	Seltzogene, charge maker	1
	Tea wrapping	1
	Drysalter	1
	Leadlight maker	2
	Cab washing	2
	Saddler	1
	Knackers Yard	1
	Sundries	16
	Ice Cream Makers	7
	Total number of Workshops on Register	198

Table 20.

5.—Other matters.

Class. 1	Number. 2
Matters notified to H.M. Inspector of Factories :—	
Failure to affix Abstract of the Factory and Workshop Acts (S. 133, 1901)	0
Action taken in matters re-notified by H.M. Inspector ..	10
Referred by H.M. Inspectors as { remediable under the Public Health Acts, but not under the Factory and Workshops Acts (S. 5, 1901) {	10
Other	Nil
Underground Bakehouses (S. 101) :—	
Certificates granted during the year	—
In use at the end of the year	1

Table 21.

Admissions, discharges, and deaths of St. Helens Patients during 1919.
Peasley Cross Isolation Hospital.

DISEASE.	In hospital Jan. 1st, 1919.		Admitted.		Dis- charged.		Died		In hospital Jan 1st, 1920.		Patient days 1919.	
	M	F	M	F	M	F	M	F	M	F	M	F
Typhoid fever ..	—	—	3	4	3	3	—	1	—	—	77	113
Scarlet fever....	14	17	101	119	102	125	2	2	11	9	3868	4236
Diphtheria	23	22	114	123	115	117	14	12	8	16	3855	3469
Measles	—	—	15	12	6	4	—	—	9	8	244	143
Other diseases ..	2	4	67	96	54	73	8	18	7	9	1770	2171
	39	43	300	354	286	322	24	33	35	42	9814	10132
Venereal diseases	82		654		602		57		77		19946	
	—		36		32		1		3		904	
Total	82		690		634		58		80		20850	

Table 22.

Admissions, discharges and deaths of patients during 1919,
Old Whint Hospital, Haydock.

DISEASE	In hospital Jan 1st, 1919.		Admitted		Discharged		Died		In hospital Jan 1st, 1920.		Patient days, 1919.	
	M	F	M	F	M	F	M	F	M	F	M	F
Maternity	—	7	—	112	—	111	—	1	—	7	—	4797
Scabies	—	—	6	4	6	4	—	—	—	—	132	329
Observationcases	—	—	11	9	7	7	3	1	1	1	1151	429
Marasmus	—	4	12	14	6	11	6	4	—	3	367	872
Post Maternity..	—	—	—	19	—	16	—	1	—	2	—	488
Pneumonia	—	—	5	8	4	4	—	2	1	2	89	131
Other diseases ..	3	7	37	70	31	61	9	11	2	5	1775	2586
Born in hospital	3	18	71	236	54	214	18	20	4	20	3514	9632
Baby with sick	4	2	36	39	35	38	3	3	—	—	780	776
mother ..	—	—	11	17	8	16	—	—	3	1	284	257
Mother with sick	—	—	—	7	—	7	—	—	—	—	—	87
baby	—	—	—	—	—	—	—	—	—	—	—	—
	7	20	118	299	97	275	21	23	7	21	4578	10752
Total ..	27		417		372		44		28		15330	

Table 23.

Admissions, discharges, and deaths of Haydock patients during 1919
Peasley Cross Isolation Hospital.

DISEASE.	In hospital Jan. 1st. 1919		Admitted.		Discharged		Died.		In hospital Jan. 1st, 1920,		Patient days 1919.	
	M	F	M	F	M	F	M	F	M	F	M	F
Scarlet fever	1	1	4	11	4	8	—	—	1	4	114	378
Diphtheria	—	1	—	2	—	3	—	—	—	—	39	32
Enteric fever	—	—	—	—	—	—	—	—	—	—	—	—
Other diseases	—	—	1	—	1	—	—	—	—	—	31	—
	1	2	5	13	5	11	—	—	1	4	184	410
Total . .	3		18		16		—		5		594	

Table 24.

Percentage of cases of infectious diseases removed to hospital.

	1912.	1913.	1914.	1915.	1916.	1917.	1918.	1919.
Scarlet fever . .	85·6	82·8	87·1	98·4	96·6	97·07	92·4	99·5
Diphtheria	69·6	70·9	88·3	93·0	92·7	96·4	92·9	100·0
Enteric fever . .	93·0	100·0	92·5	100·0	100·0	100·0	71·4	100·0
Puerperal fever	50·0	50·0	64·7	100·0	60·0	100·0	62·5	88·2
Erysipelas	7·5	4·0	1·8	5·4	1·2	4·01	1·4	4·1
Phthisis	70·0	34·3	55·5	67·6	75·0	92·6	89·5	81·4
Ophthalmia	0·0	0·0	11·5	12·6	11·5	33·33	42·5	34·2

Table 25.

MATERNITY AND INFANT WELFARE CENTRES		First visits	Subsequent visits
Number of expectant mothers attending the centres		204	149
Number of mothers attending the centres		1,186	897
Number of children attending the centres		1,235	942
Number of attendances of	{ expectant mothers	801	
	{ mothers	9,084	
	{ children	9,440	

Table 26.—Venereal Disease.

Annual return relating to persons residing in the County Borough of St. Helens who were treated at the Treatment Centre at Claughton Street during the year ending on the 31st December, 1919.

1	Number of persons dealt with at or in connection with the out-patient Clinic for the first time and found to be :—	Males	Females
	Suffering from syphilis	67	26
	„ „ soft chancre	23	5
	„ „ gonorrhœa	71	14
	Not suffering from venereal disease	12	7
	TOTAL ..	173	52
2	Number of persons discharged from the out-patient Clinic after completion of treatment for :—		
	Syphilis.....	—	—
	Soft chancre.....	—	—
	Gonorrhœa	—	—
	TOTAL ..	—	—
3	Number of persons who ceased to attend the out-patient Clinic without completing treatment and who were suffering from :—		
	Syphilis	36	16
	Soft chancre	—	—
	Gonorrhœa	11	5
	TOTAL ..	47	21
4	Total attendances of all persons at the out-patient Clinic who were :—		
	Suffering from syphilis	895	413
	„ „ soft chancre	80	25
	„ „ gonorrhœa	591	54
	Not found to be suffering from venereal disease..	54	29
	TOTAL ..	1620	521
5	Aggregate number of “ In-patient days ” of treatment given to persons suffering from venereal disease.....	2,141	
IN-PATIENTS			
7	Number of doses of Salvarsan substitutes given :—		
	Galyl	Doses.	
	to (1) St. Helens patients	60	
	(2) Lancashire County patients	3	
OUT-PATIENTS			
	Galyl		
	to (1) St. Helens patients	694	
	(2) Lancashire County patients.....	102	
8.	Examinations of Pathological material :—		
	(a) Specimens from persons attending at the Treatment Centre which were examined at this Centre :—		
	For detection of spirochetes	None.	
	„ „ „ gonococci		
	„ Wassermann reaction		
	Others		
	(b) Specimens from persons attending at the Treatment Centre which were sent for examination to an independent laboratory :—		
	For detection of spirochetes	10	
	„ „ „ gonococci	88	
	„ Wassermann reaction	196	
	Others	—	
	TOTAL ..	294	

Table 27.

Amount of clothing, etc., disinfected during 1919.

Hospital clothing and bedding	...	...	...	7,430
Blankets, sheets, and rugs	...	...	...	4,010
Pillows and cushions	...	...	...	3,740
Beds	...	...	...	1,235
Other articles of clothing	...	...	...	8,245
Library books	...	...	...	240
Other articles	...	...	...	3,749
Articles of clothing for soldiers	...	...	...	175
Total				28,824

Table 28.

Investigations carried out in the municipal laboratory.

Specimens.	Number received	Results.	
		Positive	Negative
Diphtheria—swab	4476	187	4289
Typhoid fever—blood	20	9	11
Tuberculosis—sputum	314	7	307
Ringworm—hair	19	13	6
Other specimens	47	15	32
Total	4876	231	4645

Table 29.

Vaccination returns since 1897.

YEAR.	2 Vaccin- ated.	3 Insus- ceptible.	4 Dead.	5 Con- Obj'e't'r	6 Post- poned.	7 Removed	8 Un- accounted	Percentage not Vaccinated including Columns 5, 6, 7, 8
*1897	2,680	11	390	4	7	110	7	4·9
*1898	2,696	15	383	14	1	103	15	4·6
*1899	2,625	32	346	10	3	94	16	4·8
*1900	2,654	10	367	5	12	82	18	4·2
1901	2,639	4	391	11	29	59	24	4·4
1902	2,788	4	342	7	12	58	34	3·8
1903	2,977	8	325	2	6	62	11	2·6
1904	2,940	7	341	10	10	42	25	2·8
1905	2,923	3	270	6	10	29	18	2·1
1906	2,733	5	318	8	12	39	22	2·8
1907	2,810	9	257	24	19	49	17	3·7
1908	2,858	18	248	70	11	35	20	4·5
1909	2,720	8	241	81	9	33	11	4·7
1910	2,731	3	255	131	3	23	19	6·0
1911	2,750	9	277	148	5	26	14	6·5
1912	2,646	4	249	216	12	23	4	8·7
1913	2,499	6	296	339	14	27	9	13·0
1914	2,654	11	281	348	6	22	24	13·0
1915	2,352	2	189	367	9	34	15	15·3
1916	2,056	4	186	287	3	39	24	14·6
1917	1,762	4	158	267	1	6	45	15·7
1918	1,861	0	201	281	8	40	19	14·5

*The above Returns are for St. Helens Sub-District of the Prescott Union, which does not include quite the whole of the Borough.

Table 30.

Classification according to age of the cases of and deaths from diphtheria.

Ages.	Under 1 year	1—5	5—15	15—25	25—45	45—65	65 & over.
Cases	3	57	141	19	12	5	0
Deaths.....	1	10	14	0	0	0	0

Table 33.

Classification according to age of the cases of and deaths from scarlet fever.

Ages.	Under 1 year.	1—5	5—15	15—25	25—45	45—65	65 & over.
Cases	—	47	152	17	4	1	—
Deaths	—	5	4	—	—	—	—

Table 34.

Classification according to age of deaths from measles.

Ages.	Under 1 year.	1—2	2—5	5—15	15—25	25 and over.
Deaths	2	1	1	1	—	—
Death-rate per 1,000 of the population at these ages	0·7	0·3	0·1	0·04	—	—

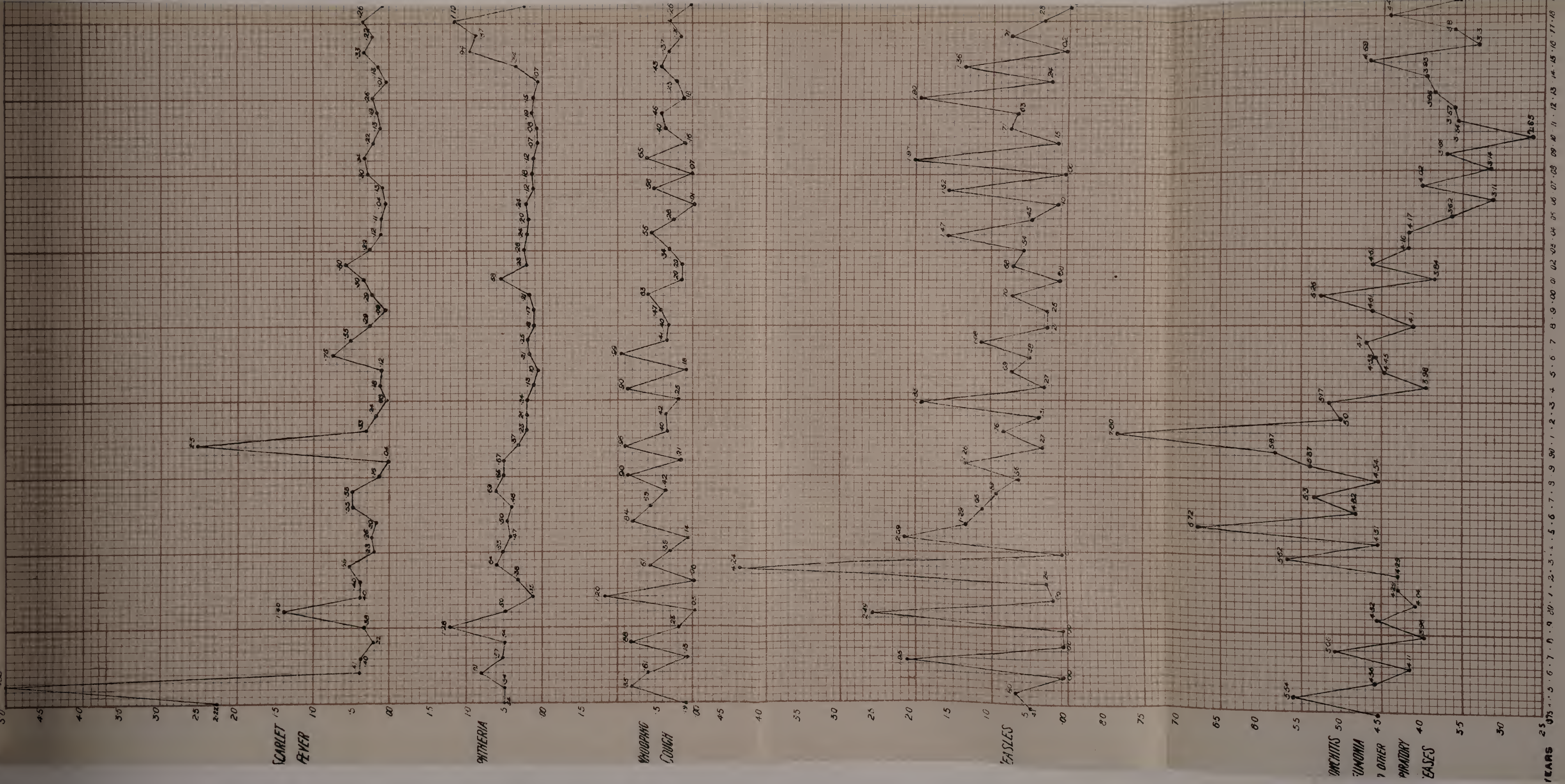
Table 35.

Classification according to age of the deaths from diarrhœa and enteritis.

Ages.	Under 1 year	1-2	2-5	5-15	15-25	25-45	45-65	65 and upw'ds
Deaths....	22	5	4	1	0	0	1	2

Table 31

per 1000 of the
Population from

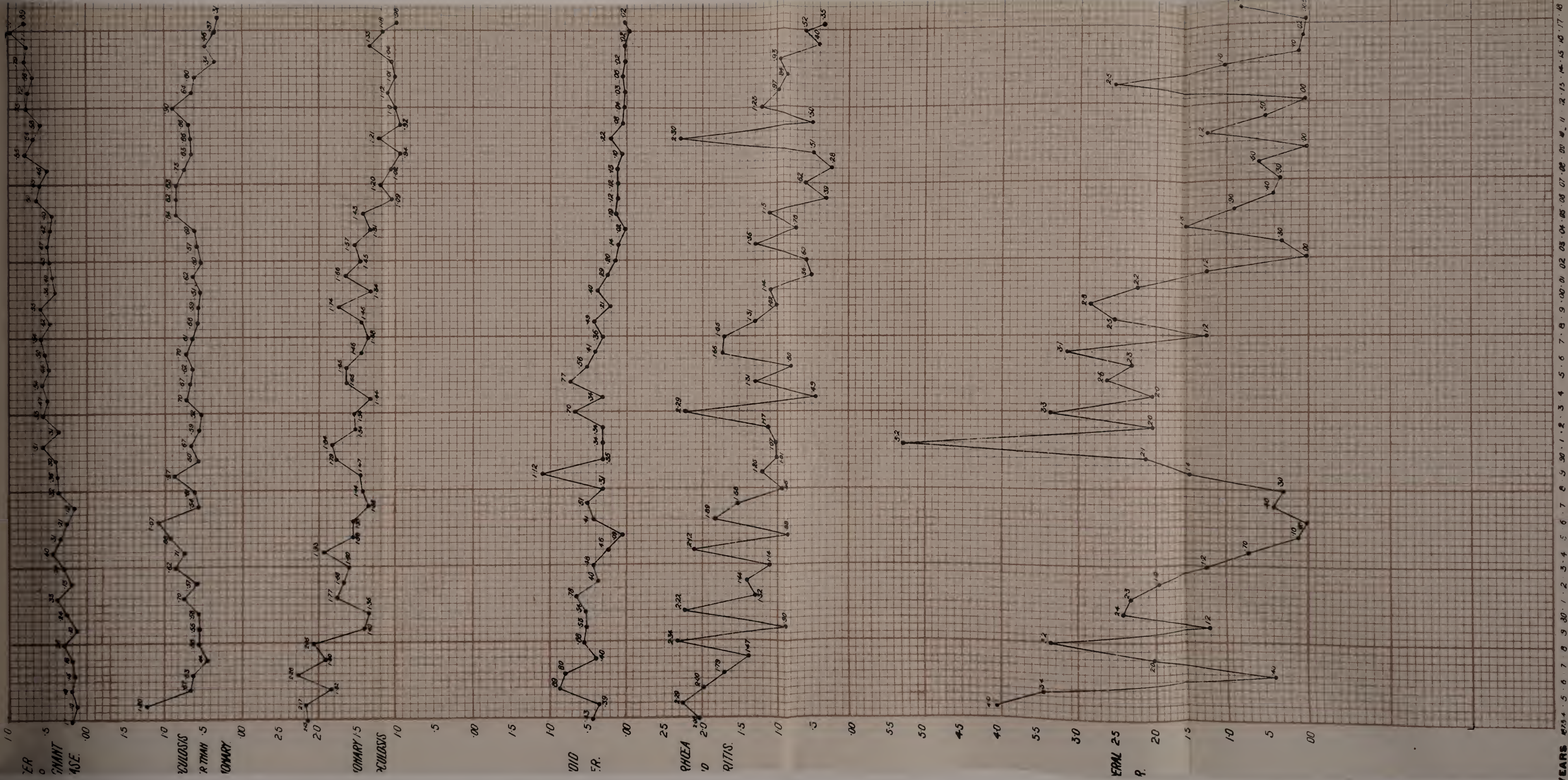




1000
1000

Table 32

000 of the
ation from



YEARS 1913 1914 1915 1916 1917 1918

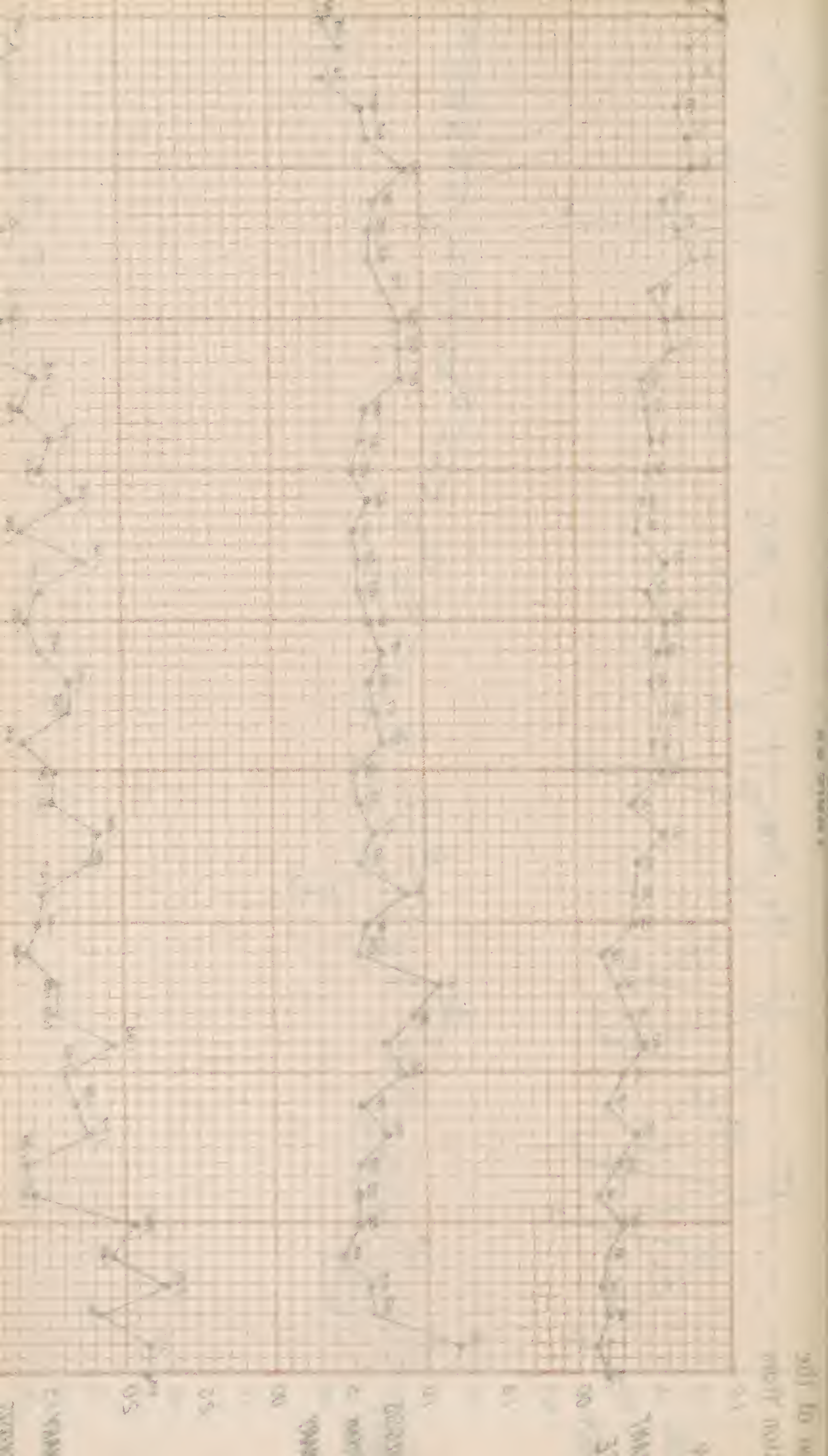


Table 36.

Classification according to age of the cases of pulmonary tuberculosis.

	0-1	1-5	5-15	15-25	25-35	35-45	45-55	55-65	Over 65	Total.
Males	—	2	9	18	22	23	14	4	—	92
Females ..	—	—	8	12	19	16	4	2	1	62
Totals ...	—	2	17	30	41	39	18	6	1	154

Table 37.

Classification according to age of the cases of non-pulmonary tuberculosis.

Ages	Under 1 year	1-5	5-15	15-25	25-35	35-45	45-55	55-65	Over 65	Total
Males	2	6	12	3	2	2	—	—	—	27
Females	1	10	15	2	—	1	—	—	—	29
Total	3	16	27	5	2	3	—	—	—	56

Table 38.
The admissions and discharges at Ecclestone Hall.

	Remaining in on Dec. 31st, 1918.		Admitted during 1919.		Discharged during 1919.		Died during 1919.		Left without permission.		Dismissed for unsatisfactory behaviour.		Remaining in on Dec. 31st, 1919.	
	Males	Females	Males	Females	Males	Females	Males	Females	Males	Females	Males	Females	Males	Females
A (Early cases). ...	3	—	4	2 1c	6	—	—	—	—	—	—	—	1	2 1c
B. (Intermediate cases).	3	1	35 4c	15 2c	18 1c	8	2	—	5 1c	2	—	—	13 2c	6 2c
C. (Late cases) ...	10 2c	6 2c	33 8c	22 4c	12 3c	3 1c	12 2c	15	4 3c	5 1c	2	—	13 2c	5 4c
D. (Observation cases).	5	3	10	9	4	3	2	2	1	2	—	—	8	5
E.	—	—	1	1	1	1	—	—	—	—	—	—	—	—
TOTALS	21 2c	10 2c	83 12c	49 7c	41 4c	15 1c	16 2c	17	10 4c	9 1c	2	—	35 4c	18 7c

Table 39.

Age and sex classification of new cases of tuberculosis attending the dispensary.

	Pulmonary.		Other Forms.		Suspicious cases.		Totals.	
	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.
1— 5....	—	—	2	2	6	1	8	3
5—15....	8	6	11	16	11	10	30	32
15—25....	12	5	4	4	15	12	31	21
25—35....	17	5	—	1	25	15	42	21
35—45....	15	2	—	—	22	13	37	15
45—55....	4	—	—	1	7	2	11	3
55—65....	1	—	1	—	1	—	3	—
65 upwards	—	—	—	—	3	1	3	1
Totals	57	18	18	24	90	54	165	96

Table 40.

Number of attendances at the tuberculosis dispensary during 1919.

	Pulmonary.	Other forms	Suspicious cases.
Number of old cases attending on 31st Dec., 1918	136	54	14
Number of new cases during the year 1919	... 75	42	144
Number of attendances during the year	1962	609	724

Table 43.
Statistics for St. Helens since 1873.

YEARS	Population.	Birth Rate.	Death Rate.	Zymotic Death Rate.	Infantile Mortality Rate.	Rate of Persons Married.	DEATHS FROM							
							Small Pox.	Measles.	Scarlet Fever.	Typhoid Fever.	Typhus Fever.	Diarrhea.	Whooping Cough.	Diphtheria.
1873	45,500	46.6	23.6	2.75	148	—	4	19	99	20	0	94	9	25
1874	46,188	46.3	31.4	5.03	198	—	0	29	238	19	0	110	41	26
1875	48,668	45.4	24.6	2.51	138	—	0	4	21	45	0	101	31	41
1876	52,246	45.6	23.2	3.20	149	—	0	101	21	42	0	94	7	30
1877	54,463	44.3	22.8	2.09	150	—	0	2	12	22	0	77	48	31
1878	57,534	43.2	23.9	3.09	165	—	0	4	22	35	0	135	15	74
1879	57,522	41.1	22.4	5.51	136	—	0	143	82	31	0	52	2	29
1880	58,807	41.6	20.0	2.92	169	—	0	0	27	32	0	131	71	8
1881	57,575	43.5	21.6	2.03	128	—	0	14	27	45	0	76	3	22
1882	58,903	43.7	25.4	4.95	180	—	0	205	35	24	0	85	36	38
1883	60,263	40.69	21.65	2.5	143	—	0	3	14	31	1	69	24	11
1884	61,584	42.50	24.16	5.3	173	—	0	131	16	33	2	131	9	11
1885	62,932	39.93	23.32	3.5	168	—	0	81	13	7	1	56	53	11
1886	64,311	40.70	22.46	5.2	172	—	0	102	34	28	0	122	41	16
1887	65,718	37.00	21.69	3.9	163	—	0	53	35	34	0	101	28	11
1888	67,158	39.20	19.80	3.1	151	—	0	38	11	22	0	65	61	21
1889	68,628	39.86	23.50	4.18	177	—	0	78	3	81	1	85	15	29
1890	70,132	38.90	25.43	5.3	170	—	0	19	181	24	1	74	68	12
1891	71,509	40.80	26.02	3.0	180	—	0	54	24	26	0	78	29	9
1892	72,399	40.2	21.0	2.64	147	—	1	23	18	25	0	84	31	12
1893	73,576	41.3	24.4	5.4	196	—	5	135	6	52	0	168	19	16
1894	*76,112	37.8	18.3	2.21	161	14.6	0	21	14	26	2	38	61	16
1895	77,288	40.9	21.8	3.10	181	13.0	1	54	9	59	0	101	14	8
1896	78,482	38.7	20.9	3.73	177	13.2	0	38	59	40	0	63	78	17
1897	79,694	40.0	21.8	4.3	181	14.2	0	87	44	33	0	133	33	20
1898	80,926	40.3	19.9	3.2	172	14.2	0	17	24	20	0	140	34	16
1899	82,176	38.3	20.4	2.9	157	13.0	0	21	8	43	0	114	41	12
1900	83,445	37.1	22.8	3.2	188	13.0	0	59	25	19	0	91	56	17
1901	84,734	36.9	19.7	2.56	175	13.9	0	7	29	34	0	95	17	12
1902	86,043	37.4	19.7	2.60	167	11.4	0	59	52	25	0	50	18	20
1903	87,372	39.1	17.5	1.72	138	13.0	0	1	26	18	0	53	30	22
1904	88,722	37.4	20.9	3.96	174	12.9	3	131	17	13	0	120	49	22
1905	89,843	36.05	17.2	1.88	132	11.7	0	41	16	2	0	66	26	12
1906	91,153	33.9	17.3	1.79	159	11.9	0	10	4	18	0	105	5	22
1907	92,476	34.1	18.3	2.87	155	13.6	0	145	10	12	0	36	52	12
1908	93,812	35.2	16.0	1.32	122	12.3	0	0	29	12	0	59	7	12
1909	95,161	32.0	18.5	3.5	149	12.7	0	188	33	13	0	27	62	12
1910	96,523	32.7	14.5	1.26	121	13.1	1	15	22	10	0	51	16	12
1911	96,870	33.5	18.3	3.03	158	12.7	0	69	13	22	0	143	39	12
1912	98,159	31.9	15.5	1.76	124	14.0	0	62	19	8	0	49	46	12
1913	99,460	32.1	18.9	3.74	155	14.6	0	189	26	4	0	120	18	12
1914	100,775	33.3	17.0	1.62	138	14.1	0	25	5	4	0	98	24	12
1915†	92,240	32.1	19.3	3.1	129	16.1	0	126	12	6	0	78	40	32
1916†	90,000	26.5	16.8	1.95	108	14.9	0	2	30	2	0	64	34	8
1917†	90,600	22.0	16.53	2.26	123	10.60	0	65	20	2	0	37	19	7
1918†	90,600	24.1	21.2	2.45	126	11.4	0	26	24	0	0	48	24	10
1919†	100,805	25.5	15.0	0.82	117	17.5	0	5	9	2	0	35	7	2

† Estimated civil population

* Borough extended.

Table 41

INFANTILE MORTALITY RATE - ST HELENS AND ENGLAND AND WALES - 1873-1919

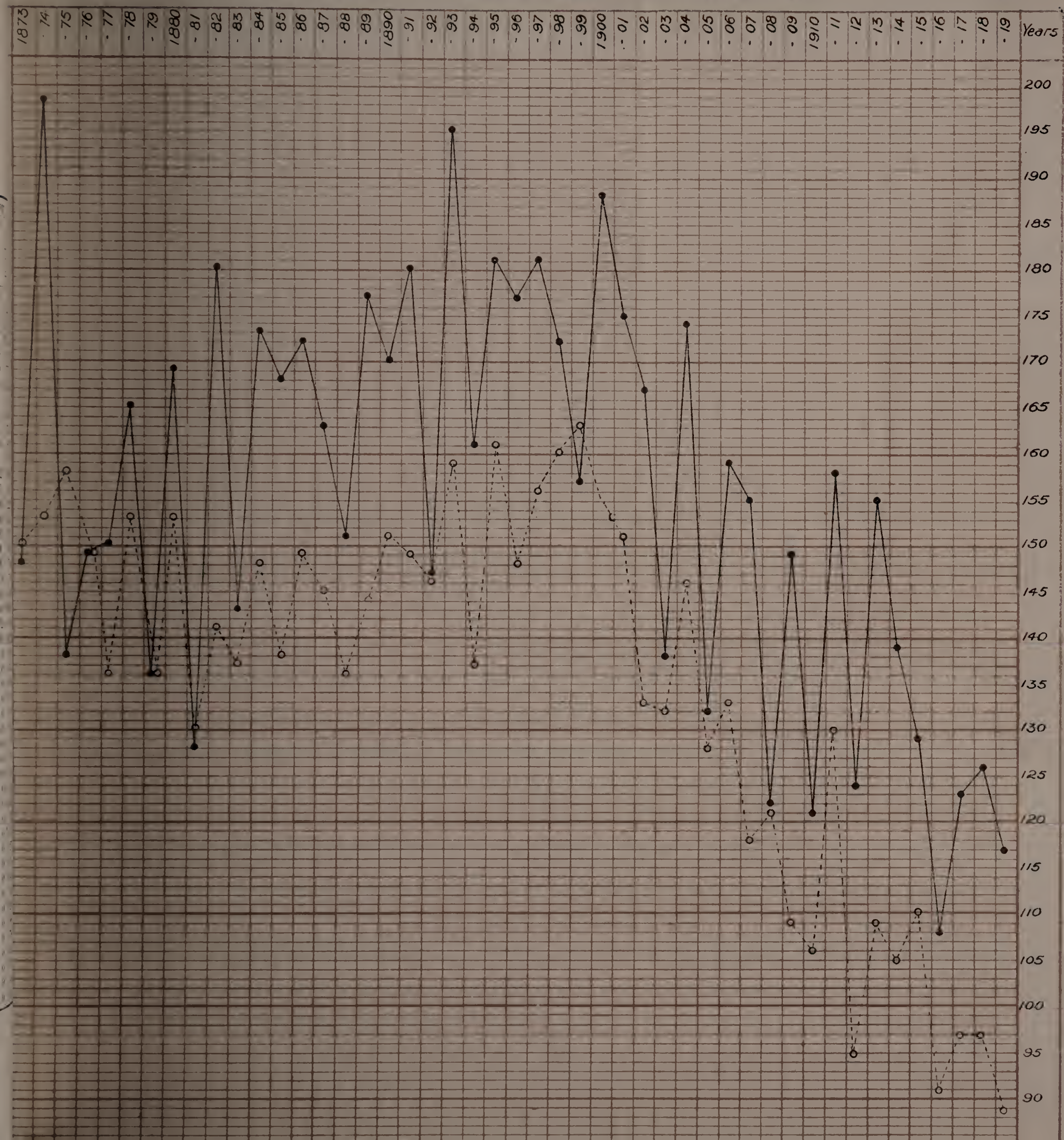
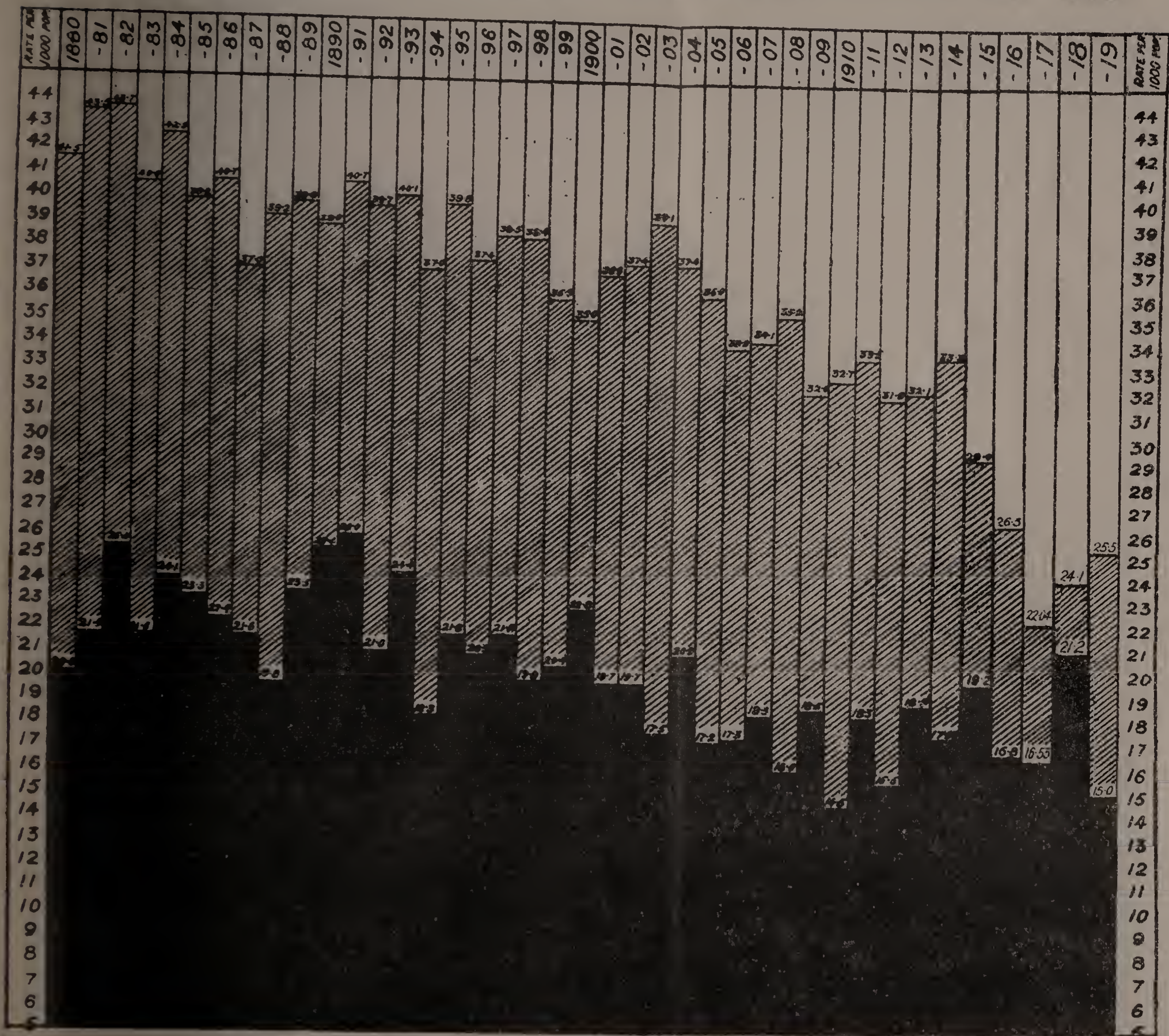




Table 42

BIRTH RATE, DEATH RATE AND RATE OF NATURAL INCREASE. ST HELENS 1880-1919



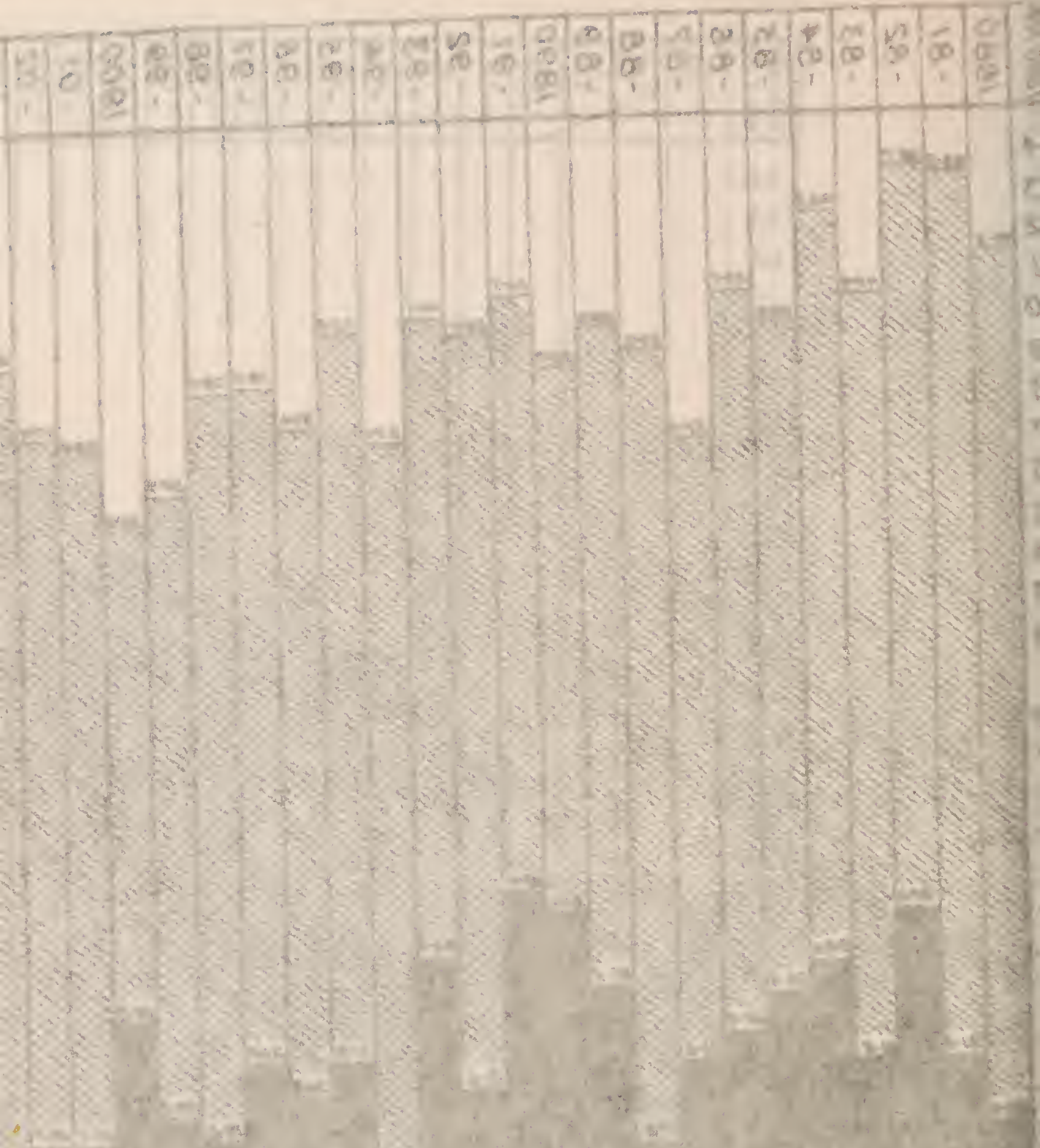
The Black portion represents the DEATH RATE.

The Shaded portion represents the RATE OF NATURAL INCREASE, or the excess of the Birth Rate over the Death Rate.

The BIRTH RATE is represented by the shaded portion PLUS the black portion.

The death rates are not corrected for age & sex distribution.

BIRTH RATE, DEATH RATE AND RATE OF NATALITY



The Birth Rate is represented by the black portion of the bar. The Death Rate is represented by the white portion of the bar. The Rate of Natality is represented by the hatched portion of the bar. The Birth Rate and the Death Rate are both expressed per 1,000 of the population.

BIRTH RATE - ST HELENS, 1873 - 1919.

Table 44.

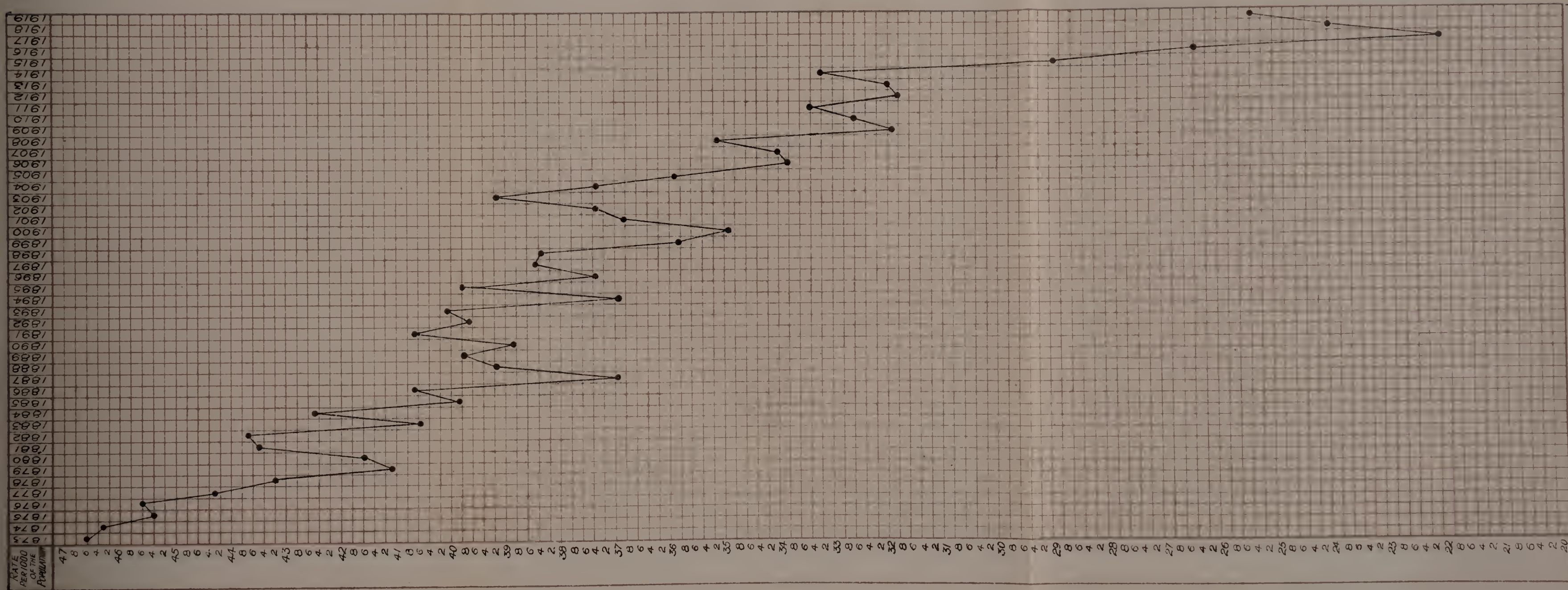




Table 45.
Birth-rates in the various wards.

WARDS.	Number of births notified.	Birth-rate per 1,000 estimated total pop'lation
North Eccleston	397	29·7
South Eccleston.	400	30·9
Central	191	27·7
North Windle	226	17·0
South Windle	214	23·7
Hardshaw	309	24·7
East Sutton	333	26·5
West Sutton	324	28·9
Parr	421	31·6

Table 46.
Number of illegitimate births.

Years.....	1902	1903	1904	1905	1906	1907	1908	1909	1910	1911	1912	1913	1914	1915	1916	1917	1918	1919
Number of illegitimate births	75	76	76	68	70	87	80	84	71	108	84	96	97	92	78	78	112	127
Proportion per 1,000 population	0·87	0·86	0·85	0·75	0·76	0·94	0·85	0·88	0·73	1·11	0·85	0·96	0·96	0·90	0·79	0·79	1·1	1·2

Table 47.
Number of marriages.

.....	1903	1904	1905	1906	1907	1908	1909	1910	1911	1912	1913	1914	1915	1916	1917	1918	1919
Number of marriages..	569	576	529	544	632	579	608	637	617	691	730	706	745	568	536	579	924
Marriage rate per 1,000 population..	13·02	12·98	11·76	11·93	13·6	12·3	12·7	13·1	12·7	14·09	14·6	14·01	14·5	11·58	10·60	11·4	17·5

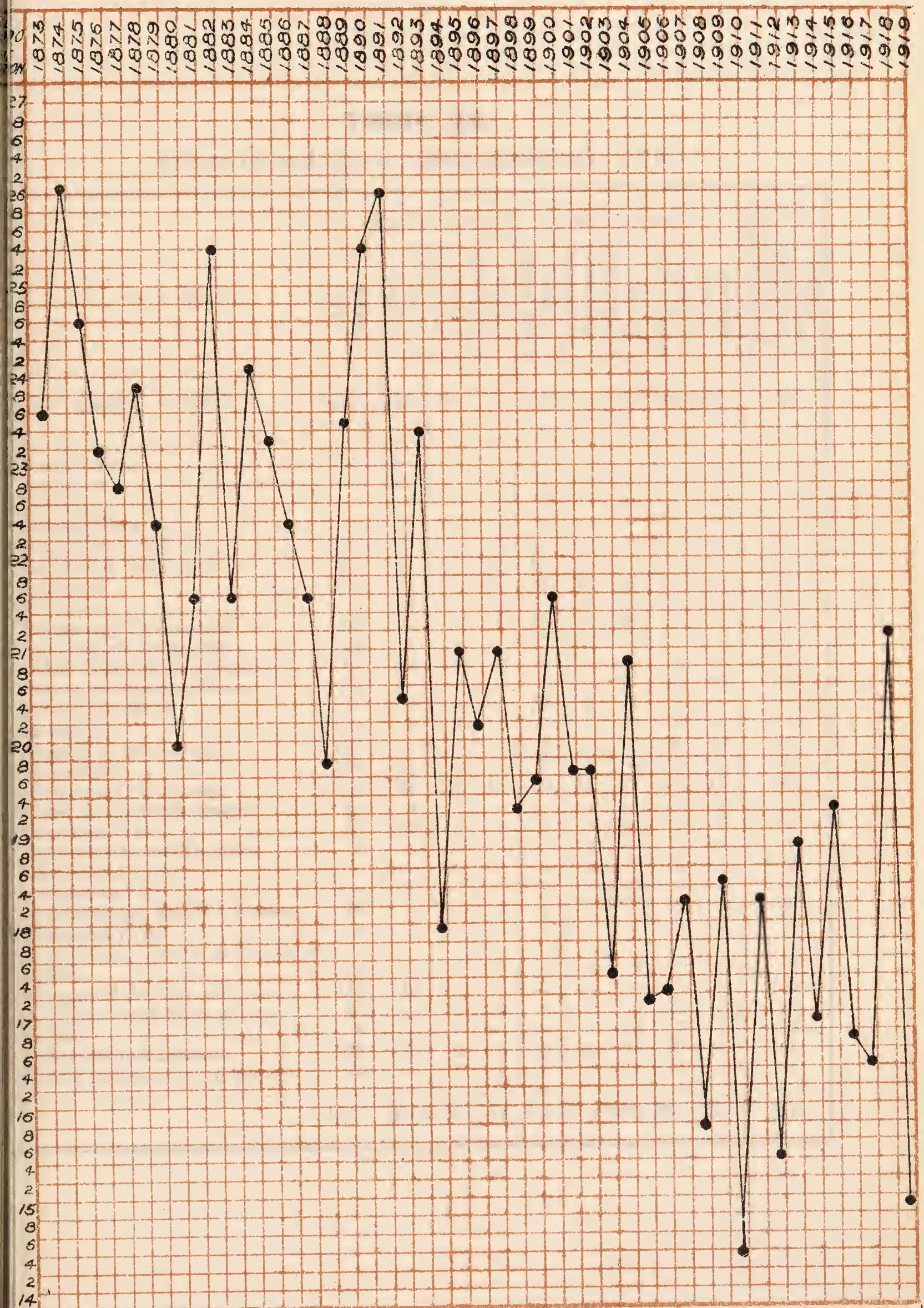
Table 49.

Death rates in the various wards.

WARDS.	Number of deaths	Death rate per 1000
North Eccleston	191	14.9
South Eccleston	174	15.4
Central	158	23.8
North Windle	149	11.7
South Windle	139	16.1
Hardshaw	140	11.6
East Sutton	168	13.9
West Sutton	188	17.5
Parr	214	16.8

Table 48

DEATH RATE - ST. HELENS, 1873-1919.



The death rate is not corrected for age & sex distribution.

Table 46

Death Rate - St. Helena, 1873-1919.



The death rate is not corrected for age & sex distribution.

Table 50.

Causes of, and ages at, death during year 1919.

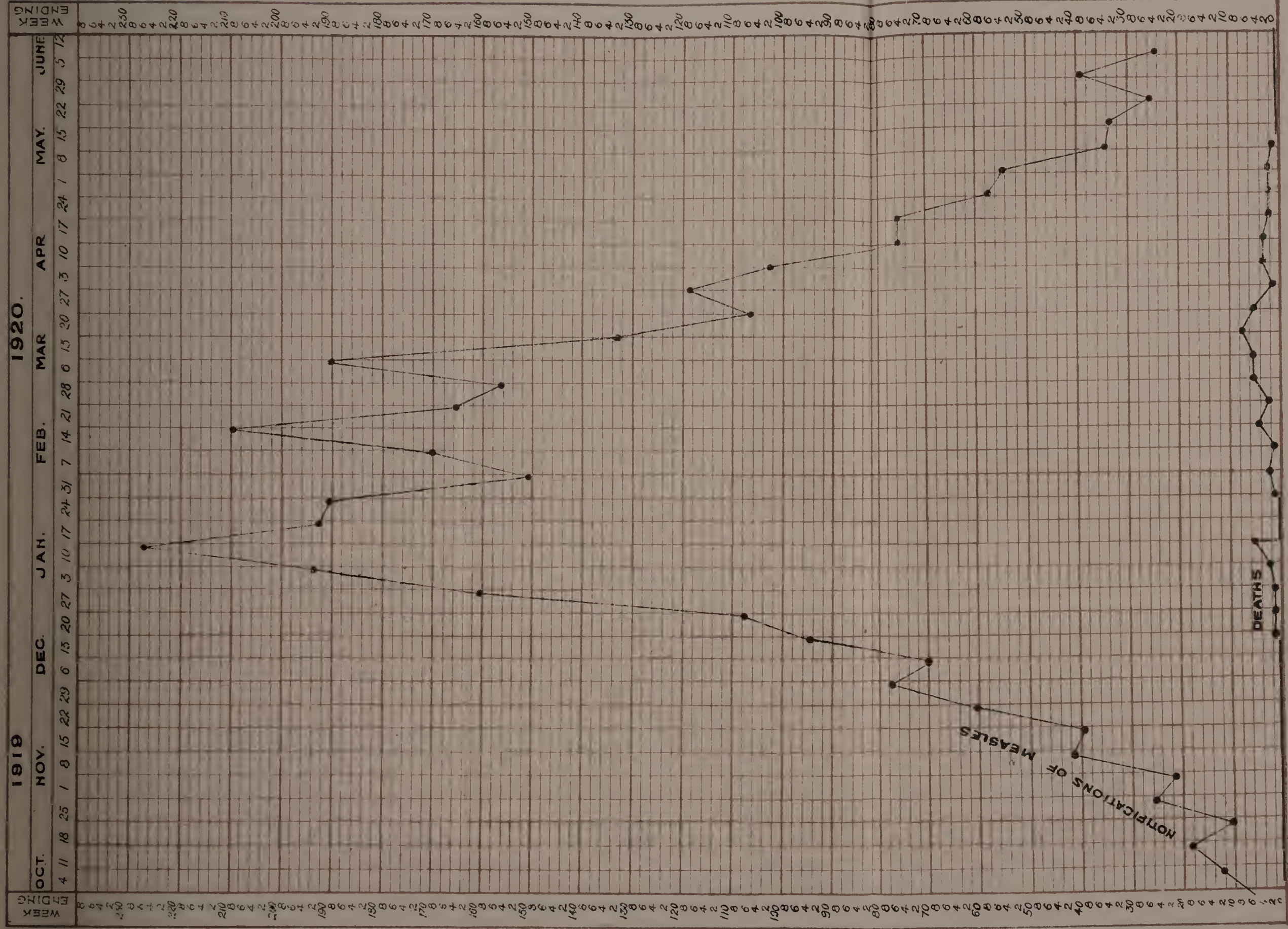
CAUSES OF DEATH.	NETT DEATHS AT SUBJOINED AGES.									Total Deaths whether of "Residents" or "Non-Residents" in Institutions in the District.
	All Ages.	Under 1 year.	1 and under 2 years.	2 and under 5 years.	5 and under 15 years.	15 and under 25 years.	25 and under 45 years.	45 and under 65 years.	65 and upwards.	
All causes—Certified.....	1,521	316	60	75	108	89	253	350	270	382
Enteric Fever	2	—	—	—	1	1	—	—	—	1
Small-pox	—	—	—	—	—	—	—	—	—	—
Measles	5	2	1	1	1	—	—	—	—	—
Scarlet Fever	9	—	—	5	4	—	—	—	—	5
Whooping Cough.....	7	—	5	2	—	—	—	—	—	1
Diphtheria and Croup	25	1	2	8	14	—	—	—	—	26
Influenza	192	8	7	10	18	22	62	50	15	42
Erysipelas.....	3	2	—	—	—	—	—	1	—	3
Pulmonary Tuberculosis.....	99	—	—	1	10	17	48	21	2	31
Tuberculous Meningitis	14	2	2	4	3	3	—	—	—	2
Other Tuberculous Diseases	17	2	1	4	6	1	2	1	—	2
Cancer, malignant disease	90	—	—	—	—	—	17	45	28	12
Rheumatic Fever	11	—	—	—	3	2	3	3	—	3
Meningitis.....	13	6	2	2	3	—	—	—	—	6
Organic Heart Disease	100	—	—	—	3	5	15	35	42	10
Bronchitis.....	148	31	6	7	1	2	8	43	50	16
Pneumonia (all forms).....	186	39	20	15	20	12	29	34	17	36
Other Respiratory diseases	16	4	1	—	—	—	2	7	2	2
Diarrhœa, etc.,.....	35	22	5	4	1	—	—	1	2	—
Appendicitis and Typhlitis	2	—	—	—	—	1	—	1	—	4
Cirrhosis of Liver	6	—	—	1	1	—	1	3	—	2
Alcoholism	—	—	—	—	—	—	—	—	—	—
Nephritis and Bright's Disease	40	1	—	2	2	1	8	17	9	20
Puerperal Fever	8	—	—	—	—	1	7	—	—	5
Parturition, apart from Puerperal										
Fever	10	—	—	—	—	1	9	—	—	3
Congenital debility, etc.	146	146	—	—	—	—	—	—	—	6
Violence, apart from suicide	45	—	2	3	7	9	6	14	4	20
Suicide	9	—	—	—	—	1	3	3	2	2
Other Defined Diseases	273	50	4	5	10	10	32	67	95	121
Causes ill-defined or unknown ..	10	—	2	1	—	—	1	4	2	1
	1521	316	60	75	108	89	253	350	270	382

Table 51.

Account of magisterial proceedings taken during 1919.

DATE.	MAGISTERIAL PROCEEDINGS.	RESULT.
April 1st ..	Failing to whitewash walls and ceilings in the first week of the month of April..	Fined 40 -
April 3rd ..	Not causing the floors of every room to be thoroughly swept before 10 a.m. ..	Fined 40 -
April 7th ..	Ditto	Fined 40 -
April 11th ..	Ditto	Fined 40 -
Sept. 11th ..	Sale of milk containing 7% of added water	Fined £5
Sept. 11th ..	Sale of milk deficient in fat to the extent of 5%	Dismissed
Sept. 11th ..	Sale of milk deficient in fat to the extent of 17%	Fined £10 and costs
Sept. 16th ..	Sale of milk containing 6% of added water	Fined £5

TABLE SHEWING NUMBER OF CASES OF MEASLES
AND NUMBER OF DEATHS WEEKLY DURING EPIDEMIC.



1850

1851



Table 52.

The wards of the borough in which dwelling houses have been erected during the years mentioned.

Year.	North Eccleston	South Eccleston	Central	North Windle	South Windle	Hardshaw	East Sutton	West Sutton	Parr	Total
1904	105	53	7	37	18	47	59	1	70	395
1905	19	93	1	44	16	90	42	10	54	366
1906	11	51	—	31	13	31	73	24	39	260
1907	22	38	—	26	—	22	77	3	29	219
1908	2	52	—	4	2	27	22	—	20	127
1909	—	36	—	10	—	10	6	3	10	75
1910	2	31	—	10	—	24	18	—	25	110
1911	14	20	—	—	—	30	75	26	12	177
1912	35	28	—	4	—	26	28	58	1	180
1913	10	31	—	—	3	19	14	99	6	182
1914	10	42	—	9	16	14	20	63	29	203
1915	6	9	0	26	1	2	8	25	27	104
1916	0	12	0	1	1	2	4	16	16	52
1917	—	—	—	—	—	—	—	9	—	9
1918	—	—	—	—	—	—	—	3	—	3
1919	—	1	3	—	—	—	—	—	—	4

Table 53.

Canal Boats Acts, 1877 & 1884.

Number of boats inspected during 1919	...	...	..	..
Number of persons housed on board	...	...	...	...
Number of males housed on board	...	...	...	...
Number of females housed on board	...	...	...	...
Average number of persons per boat	...	...	...	...
Boats registered for five persons	...	...	...	...
Number of cases of infectious diseases on board the boats				...
Number of notices and letters sent	...	...	...	...
Number of boats without certificate or registered number				...
Number of boats with leakages and requiring painting	...			...
Unregistered boats	...	...	...	...

} Nil.



MAP OF DISTRICTS SURROUNDING ST. HELENS.

SCHOOL

HYGIENE.

PREFACE.

TO THE CHAIRMAN AND MEMBERS OF THE EDUCATION COMMITTEE.

LADIES AND GENTLEMEN,

I beg to submit the following report which deals with the work of medical inspection, following up and treatment of children attending the elementary and secondary schools in the borough, carried out during the year under the general direction of the school medical officer.

During 1919 owing to the war no systematic medical inspection was carried out, but 7,105 children were surveyed by the medical officers and the nurses. Of this number 2,451 were found in need of medical attention, and 2,135 received treatment.

A total of 4,981 defects were referred for treatment and of these 89.8 per cent were treated during the year. That nearly 90 per cent of the defects received treatment is a very satisfactory record.

A dental inspection of 5,299 children was made, 3,052 were referred for treatment, and 1,185 were treated at the dental clinic.

I would again remind the Committee that there are in the borough a large number of children physically or mentally unfit to be in attendance at a public elementary school. An enquiry made during the year shows that more than 203 children are dull or backward to a degree rendering useless instruction in an ordinary class, 177 are crippled with tuberculosis and 66 with other diseases, while 52 are feeble minded, 25 are blind and 7 are deaf and dumb. For all these admission into special schools is urgently needed and is the only method by which these unfortunate children can be taught to be self-supporting, and prevented from becoming a burden on their parents or a charge on the community. Further reference to this subject will be found on page 8.

The scheme instituted in March, 1919, whereby every child in school is seen each day by a nurse, and children who are absent through

sickness are visited at home, has proved successful both from the points of view of health and school attendance. Further particulars relating to the methods adopted will be found on page 5.

I have pleasure in acknowledging the cordial co-operation of the Secretary for Education.

I am, Ladies and Gentlemen,

Your obedient servant,

JOSEPH CATES.

April 27th, 1920.

At the beginning of 1919 there were in the borough under the control of the Education Committee 38 schools with 83 departments. Seven were provided schools and thirty-one non-provided. There was accommodation for 23,747 children, 20,066 being on the roll, with an average attendance of 17,040.

At the end of the year the number on the roll was 20,214, and the average attendance 18,162.

The number of children under five years of age attending school on 31st January, 1919, was 980.

The following visits were made during the year by the assistant school medical officers :—

VISITS TO	To schools and departments	163
SCHOOLS.	To the homes of children	235

By the school nurses—

	To schools and departments.....	14,483
	To the homes of children	20,324

The number of children examined is set out in table 1, on page 10.

Table 2 shows the number of serious defects found and brought to the notice of the parents. On re-visiting a school, MEDICAL INSPECTION. children found defective at the previous visit, were re-examined.

Table 3 gives a return of exceptional children in the area.

An inspection clinic is held in the medical officer's department at the Town Hall. The work of the inspection clinic is growing to such an extent that the necessity of providing further accommodation is INSPECTION CLINIC. urgent. Much overcrowding occurs and the clerical work of the nurses is greatly impeded. During 1919, 1,342 children were seen at the inspection clinic, and a total of 2,863 attendances being made.

Table 4 shows the conditions from which the children were suffering.

Of the children, 47.0 per cent were not receiving medical attention.

The treatment clinic is situated in Claughton Street. The diseases treated are those affecting the eyes, ears, nose and throat, and teeth ; ringworm of the scalp by means of X-rays and also minor ailments. The treatment of the children at the clinic is partly carried out by a rota of private practitioners appointed by the Local Authority. There is a whole time school dentist. Minor ailments, however, are treated by nurses acting under the directions of the school medical officer. The supervision of the medical, surgical and dental work of the clinic is in the hands of the school medical officer who is directly responsible to the Committee. The medical practitioners are part time officers, each attending at the clinic for one half day per week.

A fee not exceeding two shillings is recovered from parents found on enquiry able to pay for treatment. Children obviously necessitous are sent direct to the clinic so that there may be little delay.

The number of cases dealt with during 1919 is given in table 5.

Table 6 shows the nature and extent of the dental treatment.

The following up of children discovered at the time of inspection to be suffering from disease or defect is entirely carried out by nurses in the medical officer's department and the re-examination of the cases treated is performed by the assistant medical officers. The various duties usually performed by the health visitors and school nurses are so allocated that by placing each nurse in charge of a district a considerable amount of overlapping is avoided and the saving of time thus effected allows a more comprehensive system of after-care to be adopted.

The following steps are taken to detect and prevent the spread of infectious disease in the schools. On March 17th, 1919, on the advice of the medical officer of health arrangements were made for nurses to visit daily each class in every school. The primary object being the detection of the beginnings of disease, and the provision of advice and early treatment. The borough was divided up into twenty areas, each containing one or more schools with a total population of about a thousand children of school age.

During the morning session the nurse enters each class, examines the attendance register, and fills in a card for every child absent for more than two days. The class is then rapidly surveyed, and a careful examination is made of any child that appears to be ailing, or concerning whose condition the class teacher is anxious, and particularly those coming from homes in which infectious disease exists. During the visit the nurse confers with the head teacher respecting any action arising out of the inspection.

The cards relating to absentees are distributed among the nurses in whose districts the children live, a home visit is made, usually within twenty-four hours, and a report is entered on the card which is returned to the nurse who in the first place made it out. The class teacher is thus able to obtain within a reasonable period an authoritative report by a trained nurse who has seen, and in most cases examined the absentee.

Immediately the scheme was put into operation there was a well marked improvement in the general appearance and cleanliness of the children, and parents at once began to ask the nurses for advice regarding minor ailments and other conditions.

In certain of the schools remote from the clinic it soon became necessary to provide first aid outfits so that cuts, sores and trivial ailments could be treated by the nurses on the school premises, with the result that children who would otherwise have been kept at home untreated, were sent to school.

This system of daily nursing supervision seemed to be sufficiently comprehensive to allow for the regular attendance in school of all children coming from homes in which there was infectious disease, and as an experiment the exclusion of "contacts" was discontinued.

During the twelve months that scheme has been established there has been evidence of success. Teachers appreciate the daily presence in school of nurses to whom reference can be made as occasion demands. The children come to know that the nurse will visit each class, and often themselves volunteer information concerning their health and home circumstances.

In spite of the usual two-yearly epidemic of measles the schools have been remarkably free from infectious disease, and for the first time on record the outbreak of measles did not gain a foothold in the public elementary schools.

Possibly the most striking feature of the experiment has been the persistent improvement in the average percentage attendance, an improvement which earned during 1919 for the local authority about £1,800 in increased grant.

School closure on account of an epidemic of influenza and measles was put into operation on the occasions set out in table 7.

Table 8 gives a summary of treatment of the defects found in children

Necessitous children requiring free meals are reported to the district care committees by head teachers and others. Inquiries are then made concerning the circumstances of the parents. If the children cannot be properly fed by the parents owing to unfavourable home conditions, they are supplied with meals at the School Feeding Centres.

Breakfasts and dinners are provided at five centres, namely, Windle Pilkington, Merton Bank, Robins Lane, Thatto Heath and Sutton Manor Schools. Dinners only are provided at four centres, viz.: Higher Grade, Rivington Road, St. Peter's and Parr Flat Schools. The meals are prepared at the centres and are served by paid attendants. At Sutton Manor centre the meals are cooked at a private house free of charge. The Rivington Road Centre was closed on the 30th June, 1919.

The total number of meals served during the year was 119,911, 76,105 being provided free.

The average total cost per meal is 3.49 pence; while the average cost per meal for food only is 2.59 pence.

MISCELLANEOUS WORK. At the request of the Education Committee, 101 scholarship candidates were medically examined.

Two hundred and fifty-three children on whose behalf application had been made for exemption from attendance at school, were examined with respect to their physical fitness to undertake employment; in 218 instances no cause of rejection was discovered, and in 35 cases the children were found to be suffering from a defect requiring treatment.

The clerical work arising out of medical inspection is very heavy. During 1919, 1,416 exclusion notices, 1,320 admission notices,

424 preliminary notices, 209 final notices, 3,052 dental notices, 1,891 miscellaneous notices and several thousands of letters were sent out from the medical officer's department.

No general scheme for the teaching of hygiene and temper-
TEACHING OF ance has been adopted in the borough. In some of the
HYGIENE schools, however, the work is performed by individual
AND teachers. Physical and breathing exercises are carried out
PHYSICAL in each school. No arrangements have yet been made for
EXERCISES. open-air schools, school camps or similar institutions.

* Until recent years a cripple was understood to be a lame person, and those suffering from defects of the body and upper limbs were not looked upon as cripples unless lameness was also present. A wider
THE meaning has, however, been given to the word, which now
CRIPPLED includes children who are abnormal on account of disease
CHILD or defect of bones or joints, those suffering from paralysis, and those in whom there is serious disease of the heart. Logically, all physical defects, deafness, blindness, and the like, rendering a child unfit for education in an ordinary school or for participation in physical exercises and games, might be regarded as causes of crippling; but in considering the welfare of cripple children it will be convenient to confine our attention to those who, through physical defect, are unable to lead an active life.

The ranks of the unemployed and destitute are still recruited from children mentally or physically defective.

The cripple-child is generally irregular in attendance at school, and in some cases receives no education at all. On leaving school, cast into the world without a trade, shut out from unskilled labour through physical inability to compete with the able-bodied, he drifts into the workhouse or is drawn into crime. On the other hand, expenditure incurred in the treatment, supervision, and after-care of physically defective children is likely to show a profitable return, and many of the children eventually become highly skilled workmen and valuable members of the community.

The ordinary public elementary school is unsuitable for the majority

*For further information on this subject reference should be made to "The Welfare of the School Child" (Cassell & Co) from which this extract is taken.

of cripple children, mainly for three reasons. Firstly, the children are generally backward, and therefore in need of individual instruction, impossible in a large class. Secondly, they are, as a rule, unable in the playgrounds to withstand the buffeting of healthy children, and beyond this they are often delicate, frail, and ill-nourished. In other words, they require the advantages of open-air life.

Some are so deformed as to be unable to use the desks and chairs of the ordinary school ; to a few, walking is difficult ; others are bedridden.

In order to be self-supporting in after-life it is essential that the physically defective child should begin to specialise at an early stage, so as to acquire a degree of skill sufficient to compensate for the handicap which deformity imposes.

The extent to which crippling is prevalent in children of school age is somewhat difficult to estimate. A general survey of all abnormal children in attendance at school has been completed only in a few areas, and there is, further, a source of error in the fact that the names of a large number of cripples of school age are not on any school register.

Nevertheless, it can be said that about 1 per cent. of children of school age are cripples, so that in England and Wales, at the present time, there are some 60,000 children for whom special provision is required. Special day schools for cripples can accommodate about 5,000 children, and there are residential schools for only about 300 cases, so that for the majority of cripple children little is being done. This is the more to be regretted because in the treatment of deformities modern methods can achieve brilliant results.

With early recognition, prompt surgical attention, and persistent after-care, the twisted neck, the curved spine, the club foot can be straightened and the child be made a normal active individual. The conspicuous success of the orthopædic hospitals established during the War surely points the way along which local authorities should proceed, and it is to be hoped that when these institutions have fulfilled their purpose of repairing the injuries of war, they may be used to restore health to the deformed victims of disease.

The recent experience gained in the treatment of deformities is likely to prove extremely valuable in years to come, and there are already avail-

able the services of a considerable number of medical men highly skilled in this special branch of surgical work.

The causes of deformity are chiefly four—tuberculosis, infantile paralysis, rickets, and defects of development.

Tuberculosis alone is responsible for nearly half of all deformities, and infantile paralysis for rather less than one third. The first is the cause of diseases of spine, hip, and other joints. The second brings about wasted limbs and flail feet, indicative of destruction of nerve centres.

Rickets leads to pigeon chest, bow legs, and knock-knees; while among other defects are wry-neck, congenital dislocation of the hip, and simple curvature of the spine. Wry-neck is generally thought to be due to injury at birth; simple spinal curvature is the result of muscular weakness and the adoption of faulty positions in standing and sitting. Less common defects are club-hand, webbed fingers, the congenital absence of fingers or the whole hand, and the deformities due to injury and accidents.

The prevention of crippling must be sought in a reduction of the prevalence of the diseases occasioning deformities.”

Table I.

Inspection, treatment, and re-examination of children during 1919.

(1)	The total number of children surveyed	7,105
(2)	The number of children in (1) suffering from defects (other than uncleanliness or defective clothing or footgear) who require to be kept under observation (but not referred for treatment)	526
(3)	The number of children in (1) who were referred for treatment (excluding uncleanliness, defective clothing, etc.)	2,451
(4)	The number of children in (3) who received treatment for one or more defects (excluding uncleanliness, defective clothing, etc.).....	2,135
MEDICAL RE-EXAMINATIONS IN SCHOOL.		
	Number—Re-examined	1,742
	Remedied	491
	Improved	626
	Untreated.....	405
	Unchanged	220

Table 2.

Return of defects found in the course of medical inspection in 1919.

Defect or Disease.		CODE GROUPS.		SPECIALS.	
		Number referred for treatment.	Number requiring to be kept under observation, but not referred for treatment.	Number referred for treatment.	Number requiring to be kept under observation, but not referred for treatment.
(1)		(2)	(3)	(4)	(5)
SKIN	Malnutrition.....	..	..	126	30
	Uncleanliness—				
	Head .....	..	..	1918	..
	Body .....	..	..	186	..
SKIN	Ringworm—				
	Head .....	..	..	18	..
	Body .....	..	..	31	..
	Scabies .....	..	..	190	..
	Impetigo .....	..	..	574	..
	Other Disease .....	..	..	204	..
EYE	{ Defective Vision and Squint.....	..	..	301	..
	{ External Eye Disease .....	..	..	268	..
EAR	{ Defective Hearing.....	..	..	19	5
	{ Ear Disease .....	..	..	133	..
TEETH	Dental Disease .....	..	..	25	..
NOSE AND THROAT	{ Enlarged Tonsils .....	..	..	11	..
	{ Adenoids.....	..	..	37	..
	{ Enlarged Tonsils and Adenoids .....	..	..	57	..
	{ Other Throat and Nose defects .....	..	..	28	..
	{ Defective Speech.....	..	..	9	9
HEART AND CIRCULA- TION	{ Heart Disease .....	..	..	..	..
	Organic .....	..	..	5	..
	Functional .....	..	..	9	2
	{ Anaemia .....	..	..	83	25
LUNGS	{ Pulmonary Tuberculosis				
	Definite .....	..	..	46	..
	Suspected .....	..	..	33	20
	{ Chronic Bronchitis .....	..	..	30	27
	{ Other Disease .....	..	..	28	30
NERVOUS SYSTEM	{ Epilepsy .....	..	..	5	7
	{ Chorea.....	..	..	14	..
	{ Other Disease .....	..	..	12	31
	Non-pulmonary Tuberculosis—				
	Glands.....	..	..	30	12
	Bones and Joints .....	..	..	22	8
	Other Forms .....	..	..	9	4
	Rickets .....	..	..	9	4
	Deformities .....	..	..	14	35
	Other Defects or Diseases .....	..	..	497	277

Table 3.

Numerical return of all exceptional children in St. Helens in 1919.

			Boys	Girls	Total	
BLIND. (including partially blind).			Attending Public Elementary Schools . . .	10	10	20
			Attending certified schools for the blind..	2	7	9
			Not at school	2	3	5
DEAF AND DUMB. (including partially deaf).			Attending Public Elementary Schools...	2	4	6
			Attending certified schools for the deaf	4	5	9
			Not at school	1	—	1
MENTALLY DEFICIENT.	Feeble Minded.	Attending Public Elementary Schools...	31	19	50	
		Attending certified schools for mentally defective children	—	—	—	
		Notified to the Local (Control) Authority during the year	—	—	—	
		Not at school	1	1	2	
	IMBECILES IDIOTS.	At school	1	—	1	
		Not at school	3	1	4	
EPILEPTICS.			—	—	—	
			Attending Public Elementary Schools...	8	6	14
			Attending certified schools for Epileptics..	—	1	1
			Not at School	2	1	3
PHYSICALLY DEFECTIVE.	Pulmonary Tuberculosis	Attending Public Elementary Schools. . .	38	34	72	
		Attending certified schools for Physically Defective Children	—	—	—	
		Not at school	2	9	11	
	Other forms of Tuberculosis	Attending Public Elementary schools....	48	24	72	
		Attending certified schools for Physically Defective children	—	2	2	
		Not at school	8	14	22	
	Cripples other than Tuberculosis	Attending Public Elementary Schools . . .	39	20	59	
		Attending Certified schools for Physically Defective children	1	—	1	
		Not at school	5	2	7	
DULL AND BACKWARD*			Retarded 2 years	110	54	164
			Retarded 3 years	26	13	39

* Judged according to age and standard.

Table 4.

Classification of defects among children attending the inspection clinic.

HEAD.		SPEECH.	
Sores	2	Defective Speech	2
Other diseases	5		
SKIN.		MENTAL CONDITIONS.	
Ringworm, scalp	11	Mentally defective.....	0
Ringworm, body	3	Dull	0
Scabies	82	Imbecile	2
Impetigo	40		
Sores	12	HEART.	
Psoriasis	3	Anæmia	89
Eczema	5	Organic Disease.....	2
Other diseases	21	Others	6
THROAT AND NOSE DEFECTS.		LUNGS.	
Enlarged tonsils and		Bronchitis	84
adenoids	19	Suspected phthisis.....	29
Enlarged tonsils.....	7	Other diseases	28
Adenoids	11		
Other diseases	14	NERVOUS SYSTEM.	
GLANDS.		Epilepsy	1
Enlarged	27	Chorea	9
Abscess	5	Paralysis	3
		Others	9
EYES.		TUBERCULOSIS.	
Conjunctivitis	15	Phthisis	8
Blepharitis	2	Glands	4
Ulcers.....	2	Bones and joints	6
Squint	25	Skin	1
Defective vision	111		
Other diseases	10	RICKETS.....	0
EARS.		KIDNEY DISEASE.....	4
Discharge	21	GENERAL DEBILITY.....	150
Deafness	10	RHEUMATISM.....	24
Other diseases	12	OTHER DISEASES	398

Table 5.

Classification of cases treated at school clinic during 1919.

	Treatment carried on from previous year.	New Cases.	Treatment completed.	Treatment not completed at the end of the year.	Partially treated.
Eye defects	14	467	326	112	43
Nose and throat defects ....	..	162	162	..	..
Diseases of the teeth .....	..	1,185	1,185	..	..
Ringworm of scalp	1	19	14	6	..
Minor ailments	127	1,729	1,496	360	..
	142	3,562	3,183	478	43

Table 6.

Dental inspection and treatment.

AGES	Number inspected in schools		Number requiring treatment		Number treated at school clinic		Extraction		Anæsthetics		Fillings		Mis- cellaneous
	Boys	Girls	Boys	Girls	Boys	Girls	Tempor- ary	Per- manent	Local	Nitrous Oxide	Amalgam	Cement	Scalings & Dressings
4 and under 5..	30	34	27	24	20	17	64	..	37	..	..	..	6
5 ,, 6..	368	310	209	260	55	102	206	..	156	1	..	..	9
6 ,, 7..	361	370	214	314	96	109	280	..	190	..	14	3	14
7 ,, 8..	434	396	273	182	96	97	190	..	180	1	17	5	21
8 ,, 9..	381	221	124	180	47	57	129	..	57	..	58	8	17
9 ,, 10..	269	319	136	169	48	49	204	19	51	..	54	16	26
10 ,, 11..	275	295	180	128	79	46	120	96	42	..	93	21	41
11 ,, 12..	121	270	90	167	49	44	92	69	57	..	86	3	49
12 ,, 13..	276	297	82	104	44	41	82	54	51	..	74	..	14
13 ,, 14..	126	146	91	98	50	39	17	86	74	..	22	6	18
Totals	2,641	2,658	1,426	1,626	584	601	1,384	324	895	2	418	62	215
	5,299		3,052		1,185		1,708		897		480		

Number of half days during 1919 on which Public Elementary
Schools in the borough were closed on account of
infectious disease.

SCHOOL.	DEPARTMENTS.	No. HALF DAYS.
Allanson Street C.	Mixed and Infants	34
Higher Grade	Boys, Girls and Infants	34
Thatto Heath	Senior and Junior	34
Merton Bank	Boys, Girls and Infants	34
Rivington Road	Boys and Girls	34
Rivington Road	Infants	50
Robins Lane C.	Boys and Girls	34
Robins Lane C.	Infants	50
Windle Pilkington C.	Boys, Girls and Infants	34
St. Luke's.....	Mixed and Infants	43
Laffak	Mixed and Infants	42
Marshalls Cross	Infants	42
St. Helens Parish Church	Senior and Junior	34
Parr Flat	Mixed and Infants	34
Parr Mount	Boys, Girls and Infants	34
Peasley Cross	Infants	34
Ravenhead	Mixed and Infants	34
St. Matthews	Mixed and Infants	34
St. Mary's C.E.	Boys, Girls and Infants	34
St. Peter's	Mixed and Infants	34
St. Thomas	Mixed and Infants	34
Sutton C.E.	Boys, Girls and Infants	34
Windle	Mixed and Infants	34
Blackbrook.....	Boys, Girls and Infants	34
Holy Cross	Boys, Girls and Infants	34
Lowe House	Boys, Girls and Infants	34
Sacred Heart	Boys, Girls and Infants	41
St. Anne's.....	Boys, Girls and Infants	34
St. Austin's	Boys, Girls and Infants	34
St. Joseph's	Girls and Infants	34
St. Patrick's.....	Girls and Infants	34
St. Teresa's	Boys, Girls and Infants	41
St. Vincent's	Mixed and Infants	34
Sutton St. Joseph's	Mixed	34
Sutton St. Joseph's	Infants	76
Gerard.....	Infants	34
Windleshaw	Mixed	43
Windleshaw	Infants	62
St. Helens Wesleyan	Mixed and Infants	34
Nutgrove Wesleyan	Mixed and Infants	34

Table 8.

Treatment of defects of children during 1919.

CONDITION	No. of defects found for which treatment was considered necessary.			No. of defects for which no report is available.	No. of defects treated.	Results of Treatment.			No. of defects not treated.	Per centage of defects treated.
	From previous year.	New Cases	Total			Remedied.	Improved.	Unchanged.		
Clothing	41	296	337	14	323	166	157	..	..	95.8
Footwear	14	80	94	3	90	69	21	..	1	95.7
Cleanliness of Head ..	155	1,918	2,073	73	1,960	841	1,119	..	40	94.5
Cleanliness of Body ..	11	186	197	3	193	108	85	..	1	98.0
Nutrition	3	126	129	6	117	31	77	9	6	90.7
Nose and Throat	356	133	489	33	367	334	33	..	89	75.0
External eye disease ..	39	268	307	27	265	197	65	3	15	86.3
Ear Disease	40	133	173	10	157	54	71	32	6	90.7
Teeth	13	25	38	..	38	38	..	..	..	100.0
Heart and Circulation ..	4	97	101	14	61	25	33	3	26	60.4
Lungs	1	58	59	9	45	19	21	5	5	76.3
Nervous System .....	..	31	31	2	22	2	16	4	7	71.0
Skin	34	1,017	1,051	..	1,051	778	273	..	..	100.0
Rickets	1	9	10	2	4	1	1	2	4	40.0
Deformities .....	..	14	14	1	8	..	7	1	5	57.1
Tuberculosis Pulmonary ..	..	79	79	6	73	..	69	4	..	92.4
„ Non-Pulmonary ..	1	61	62	4	55	17	34	4	3	88.7
Speech .....	..	9	9	..	8	..	7	1	1	88.8
Mental Condition .....	..	..	..	..	..	..	..	..	..	..
Vision and Squint	392	301	693	47	532	352	153	27	114	76.7
Hearing .....	..	19	19	2	12	..	10	2	5	63.2
Miscellaneous	8	121	129	11	93	79	14	..	25	72.1
Total ..	1,113	4,981	6,094	267	5,474	3,111	2,266	97	353	89.8